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ON WASTING OR "SIMPLE ATROPHY" AS IT OCCURS IN YOUNG CHILDREN FROM INSUFFICIENT NOURISHMENT.

BY LOUIS STARR, M.D.,

Physician to the Episcopal Hospital, and Assistant-Physician to the Children's Hospital, Philadelphia.

CASES illustrating the ill effects of an insufficient supply of food, or of food which, though abundant, is unsuitable in quality, are of frequent occurrence among the out-patients of the Children's Hospital. The condition produced is either one of simple wasting, or of wasting combined with symptoms denoting irritation of the gastro-intestinal canal.

Simple wasting is, I think, most frequently seen in children who have been nursed at the breasts of feeble or over-worked mothers, in whom the milk is often both scanty and of poor quality. The symptoms are sufficiently characteristic. There is a gradual loss of plumpness, the muscles grow flaccid, and there seems to be an arrest of growth. The face is pale, the lips pale and thin, the skin harsh and dry or too moist, and the anterior fontanel level or slightly depressed. The temper is usually irritable. When nursed, the child first seizes the nipple ravenously; then, if there is little milk, he quickly drops it, to cry passionately, as if disappointed at not being able to satisfy his hunger; but if the milk is abundant, though thin, he will lie a long time quietly at the breast. The bowels are inclined to constipation. The physical signs connected with the chest and abdomen are negative, and no indication of disease of any special organ of the body can be detected.

Wasting associated with symptoms of gastro-intestinal irritation is more common, and is met with chiefly in infants who are hand-fed. Resulting in the main from an improper diet, it is often encountered where farinaceous food is employed to the exclusion, in great part, of milk; where an infant is allowed or encouraged to bolt bits of table-food and drink tea, and particularly, so far as my experience goes, where the variety of feeding-bottle

lately become so popular is used. These bottles have, in place of a plain gum nipple, an arrangement of fine glass and rubber tubing: the glass tubing extending quite to the bottom of the bottle, the necessity of holding the latter and keeping it at a proper angle in feeding is avoided. This seeming advantage is counterbalanced by the minor disadvantage that the child, left to itself, is apt to continue suction long after the bottle is exhausted, and by the great disadvantage that the tubing can never be kept clean. During my last three terms of service at the Children's Hospital it has been my rule to ask for the bottle of every hand-fed infant presented for treatment, and scarcely a day has passed without my seeing several of the bottles referred to. In almost every instance, notwithstanding the most careful and frequent cleansing, the contained milk had a sour odor, and was filled with small curds, while in cases of carelessness the odor was intolerable and the interior of the tubing was encrusted with a layer of altered curd. In bottles provided with a simple nipple, on the contrary, the milk was nearly always perfectly sound and the nipple itself clean.

As there is little difficulty in keeping the bottles themselves clean, there can be only one reason for this difference, namely, in the old-fashioned instrument the nipple is easily removed and as readily inverted and thoroughly cleansed, but in the other there is no way of thoroughly cleaning the twelve or more inches of fine tubing; it cannot be inverted, and the passage of a stream of water or of a small stiff brush can only imperfectly remove the milk clinging to the interior; this, of course, soon undergoes decomposition, and quickly inaugurates change in the next charge of milk placed in the bottle. It is evident that a constant supply of milk thus rendered acid and partially curdled must, like an excess of farinaceous or other unsuitable food, produce irritation of the mucous membrane of the alimentary canal, interfere with the processes of nutrition, and lead to a state in which the features of wasting and disordered digestion are combined.

The following case is a very typical example of this condition:

James —, æt. 3 weeks, a foster-child, was brought to the dispensary of the Children's

Hospital on April 1, 1879. His nurse stated that he had been in her charge for two weeks, and that he had been sick the whole of this time. The symptoms which arrested her attention were gradual wasting, great restlessness, with frequent, prolonged paroxysms of screaming, and redness and excoriation of the skin in the neighborhood of the genitals and anus. He had been fed upon milk diluted with water, the food being given from a nursing-bottle fitted with the combination of glass and rubber tubing.

At the date of application the child was puny, his surface generally was pale and moist, the muscles were flabby, and there was severe intertrigo of the scrotum, groins, perineum, and inner side of each thigh. His mouth felt hot, the mucous membrane was redder than normal, and the tongue and palate were covered with small patches of thrush. He took his food almost ravenously. There were frequent eructations of sour-smelling, partially-coagulated milk, and the bowels were somewhat constipated. Paroxysms of screaming occurred at short intervals, and greatly disturbed his rest at night; during these paroxysms the legs were drawn upward and moved about uneasily, the feet were very cold, and the abdomen was distended and hard. The heart and lungs were healthy, and the urine was voided freely.

The nursing-bottle was examined. The glass tube which extended to the bottom of the bottle was lined with curd, and a quantity of milk remaining from a supply placed in the bottle about an hour before was sour and contained numerous small curds. This change, it was stated, often occurred, in spite of much care taken to keep the bottle and tubing clean.

Directions were given to substitute a soft india-rubber nipple for the tubing, to keep both the bottle and nipple thoroughly clean, to wash out the child's mouth with cold water after each feeding, and to use a food composed of one part of barley-water to two of milk, with the addition of a tablespoonful of lime-water to each half-pint. Small doses of bicarbonate of sodium, with peppermint-water, were prescribed every three hours. The nurse was also ordered to rub half a teaspoonful of warm olive oil into the skin of the abdomen twice daily, to anoint the surface involved in the intertrigo with oxide of zinc ointment, and to keep the feet warm by frictions with the hand.

The improvement under this treatment was rapid. On April 11 (the day of the last visit) his mouth was cool and free from thrush; there was little eructation; the bowels were natural; there were no more attacks of colic; the sleep was undisturbed; the child had begun to gain weight; and the intertrigo was very much better.

In other cases the symptoms are much

more grave. The emaciation progresses to an extreme degree; the skin becomes dry, yellowish, and harsh, and hangs in loose folds over the bones,—and this, although a large quantity of food, such as it is, may be consumed. The combination of great wasting with a voracious appetite is very striking, and is only apparently contradictory, since hunger—the demand of the tissues for reparative material—cannot be appeased by food which, from its bad quality, is incapable of digestion or proper preparation for absorption and assimilation; unsuitable food, too, by irritating the mucous membrane of the stomach, creates a fictitious appetite.

Wasting children sometimes have what are termed "inward spasms." When these spasms occur, the upper lip becomes livid, somewhat everted, and tremulous, the eyeballs rotate or there is a slight squint, and the fingers and toes are strongly flexed. They frequently usher in true convulsions.

These "inward spasms," together with restlessness and irritability of temper, are ordinarily the only indications of involvement of the nervous system; but in a child who recently came under my notice there was a train of very misleading nervous symptoms. The notes are as follows:

Philip —, 15 months old, of Irish parentage, became an out-patient at the Children's Hospital on April 9, 1880. He was the youngest of five children, all of whom are living and healthy. His father had suffered greatly from rheumatism, and his mother, who brought him to the hospital, looked pale and worn, though she stated that she never felt ill. The child had always been fed at the breast, dentition had progressed regularly, and his health had been good until five days before the date of application, when it was observed that he was more pale than usual, that his movements were more feeble, and that there was a tendency to retraction of the head.

When first seen, his skin was pale, the temperature to the hand was normal, and upon drawing the finger-nail over the surface the tache cérébrale could be faintly produced. His face was listless in expression, the veins of the forehead were distended, and there was marked and rigid retraction of the head, any attempt to move it forward causing cries of pain and being resisted by the contracted cervical muscles. The muscles generally were soft and relaxed. The anterior fontanel was open and was natural in appearance. The tongue was very lightly frosted; there was no indication of pressure upon the gums from an approaching tooth; he took the

breast greedily, and his bowels were moved once or twice daily, the stools being perfectly healthy. There was no alteration in the condition of the abdomen. On physical examination the lungs and heart were found to be healthy, though there was a trifling loose cough; the pulse was regular, and slow considering the age of the child, the beats ranging between 80 and 90 a minute. While resting in his cradle he took little notice, so his mother stated, of what passed in the room about him, but occasionally moved his head restlessly on the pillow and uttered several low, fretful moans. Any attempt at movement, as lifting him up to nurse, was attended by crying.

He was ordered two grains of bromide of potassium, with half a grain of iodide of potassium, in camphor-water, four times daily.

On April 12, being too ill to be brought to the hospital, I visited him at his home. I found him in a moderately clean room in a healthy quarter of the city. He rested passively in his cradle, his head bent backward, his eyelids half closed, his thighs drawn up towards his belly, his arms bent at the elbows, and his hands held up under his chin. There was evidently greater prostration, more wasting, and a nearer approach to stupor. The skin was pale and cool; there was no eruption or maculation; the eyes were sunken and the fontanel somewhat depressed. The breathing was regular, and the pulse was slow and regular, but compressible. The belly was natural in shape, and soft; the tongue was slightly coated; the bowels were moved two or three times daily; there was no vomiting, and the appetite was good. In order to test his capacity for feeding, his mother was directed to put him to the breast; the child began to whimper as soon as he was moved, but when the nipple touched his lips he quickly seized it, made several forcible efforts at suction, and then dropped it with a cry as of disappointment. The breasts were examined and found to be small and flabby, and to contain little or no milk. This discovery suggesting an alteration in the diet, directions were given to feed the child chiefly upon cow's milk, and to reserve the breast-milk for the night. An attempt was also made to increase the flow of the latter by advising an improvement in the mother's dietary. The bromide of potassium mixture was continued.

On April 14 the symptoms were still more serious. When closely questioned, the mother reluctantly admitted that she had not fed her baby as ordered, having no means of procuring milk, and further that, her husband having been out of work for several weeks, her own food had been reduced to a very moderate allowance of bread and tea. In consequence the flow of milk had gradually failed, particularly so during the preceding two days, the knowledge of her child's wants and her total inability to supply them producing an

exceedingly nervous, despondent condition, and increasing the effect of the starvation diet.

She was readily put in the way of obtaining substantial relief, and after some trouble reassured and persuaded to persevere in the care of her baby. Improvement began simultaneously with the administration of food; the partial stupor, the retraction of the head, and the depression of the fontanel soon disappeared; the little patient began to gain flesh and color, and his muscles became more firm. The bromide of potassium was stopped, and two drops of the syrup of the iodide of iron were given three times daily.

On April 30, the date of the last visit to the hospital, convalescence was thoroughly established. On September 21 the child was in good health.

In this case the retraction of the head, the boring of the head into the pillow, the peculiar decubitus, the general hyperæsthesia, the semi-stupor, the marked prostration, the slowness of the pulse, the tache cérébrale, and the vomiting suggested the existence of tubercular meningitis; but this opinion was reserved on account of the absence of many characteristic features of the disease. Thus, the open fontanel was level; the belly was natural in shape; the bowels were the reverse of constipated; the respiration and pulse were regular; and there was no hydrencephalic cry. Furthermore, no account could be obtained of an initial stage of slowly-failing health, and in other respects the course of the illness was different from that of the suspected disease. At the same time, the idea of such symptoms being due to partial starvation was not entertained until they began to disappear almost immediately upon an increase in the quantity of food. Taking a retrospective view, however, it is easy to refer the anomalous symptoms to an intensely excitable nervous system,—a condition depending upon insufficient nourishment, and differing merely in degree from that leading to the "inward spasms" already referred to.

In a paper on "Starvation Fever," recently read by Dr. Da Costa before the College of Physicians of Philadelphia, three cases are detailed in which a still different set of symptoms were noted.

The first case, a girl aged 3 years, had frequent vomiting, great weakness, giddiness, a feeble and rapid pulse, fever, and loss of vision. Death took place on the thirteenth day.

The second, a pallid, badly-nourished boy 4 months old, had repeated convulsions and a petechial eruption. Death occurred at the end of twenty-four hours.

A post-mortem examination was made in both instances, and, besides minor alterations, the gastro-intestinal mucous membrane was found to be pale and thin, and there was an effusion of serum into the pleural sacs.

The third patient, a feeble girl of 3½ years, had fever, followed in a short time by bronchitis, which subsequently ran into broncho-pneumonia. Recovery took place on quinine and a supporting treatment. The bronchitis and broncho-pneumonia undoubtedly depended only indirectly on the starvation, which, by leading to weakness and ill health, rendered the child very susceptible to the ordinary causes of catarrh.

In the treatment of wasting from insufficient nourishment the first thing to be attended to is the diet. Without entering at length into this subject, it may be stated, as a general rule, that in selecting a diet the object should be to fix upon one which is suited to the age and digestive powers of the child, so that he may be able to digest, and therefore be nourished by, all the food consumed.

At the hospital I have found that children under twelve months, who have to be either partially or entirely "brought up by hand," ordinarily do well upon cows' milk with lime-water or with barley-water. The food should be administered from a bottle capable of holding half a pint, made of colorless glass, so that the least particle of dirt may be readily seen, and provided with a soft india-rubber nipple. The whole quantity of food intended to be given in a day should never be prepared at once, but each portion should be made freshly and separately at the time of administration. Thus, a bottle such as described, as nearly absolutely clean as possible, may be filled with a mixture of one part of lime-water to two or three of sound milk, or with one part of barley-water to two or three of milk, to which may be added from one to four teaspoonfuls of cream and one or two lumps of cut loaf-sugar; the nipple (also perfectly clean) is next applied, and the bottle placed in hot water until the contents become warm, when it is ready for the child.

The degree of dilution of the milk and the proportion of cream added vary, of course, with the age. Lime-water is used as the diluent when there is frequent

vomiting or acid eructation, barley-water* when it is desired to prevent the formation of a large compact curd.

After the digestion has been brought into good condition by such a diet, the food may be cautiously increased to the point suitable for a healthy child of the same age: for instance, at eight months from two to four fluidounces of thin mutton- or chicken-broth, free from grease, may be allowed in addition to the milk; at twelve months the yolk of a soft-boiled egg, rice and milk, and carefully-mashed potatoes; and after sixteen months a small quantity of finely-minced meat.

Once daily the patient should be bathed in warm water, or, at least, sponged over with warm water, and every morning and evening a teaspoonful of warm olive oil or of cod-liver oil should be gently rubbed into the skin, especially of the abdomen and chest. At the same time the belly should be completely covered with a soft flannel binder, and the feet kept warm. In this way attacks of colic, if not entirely prevented, are rendered much less frequent and severe.

When there is intertrigo, cleanliness and the free use of oxide of zinc ointment usually suffice to effect a cure.

Of medicines, bicarbonate of sodium, pepsin, and cod-liver oil are, perhaps, most useful. Cod-liver oil should not be given until the digestive powers have been brought into a comparatively normal state by proper food, antacids, and digestants. It seems to be most easily borne when given in emulsion, and may be advantageously combined with lacto-phosphate of lime or with the hypophosphites.

Such symptoms as constipation and diarrhoea demand, of course, appropriate treatment.

CASE OF CEREBELLAR ABSCESS.

BY LAMBERT OTT, M.D.

M. S., æt. 20, married, American by birth, always delicate; gave a good family history; was nursing first child, then five months old. In her eleventh year she had scarlet fever, which left a chronic otorrhoea. This discharge was purulent, now and then ceasing, to return again in a short time. This trouble, which was confined to the right ear, produced entire deafness on that side. The

* Barley-water is made by putting two teaspoonfuls of washed pearl-barley in a pint of water, boiling down to two-thirds of a pint, and straining.

membrana tympani was destroyed, and the discharge blocked up the canal, preventing a further view,—evidently an otitis media. Saturday, October 4, she moved, and retired that evening feeling very tired. The next day being Sunday, she rested, and made no particular complaint. Monday, October 6, she worked hard all day restoring order among her household goods, at the same time complaining of a dull, persistent headache, with great lassitude. She accomplished her work, and retired in the evening with an excruciating pain in the right side of the head corresponding with the side of the diseased ear. Tuesday she remained in bed, complaining of pain, great thirst, and fever. She then came under my notice. On first noticing her she was lying still, respiration imperceptible, very anæmic-looking, eyes closed, and face quite expressionless. In other words, she looked as one dead, and when informed that a physician was present she did not move. After arousing her, she repeated the above history of the headache, etc. Her condition was then as follows:

Pain still in right side of head, excruciating at times, never intermitting; no discharge from the ear; answered all interrogations intelligently, as one who was in every respect rational. After repeating some of her history, she prayed for death to relieve her from this intense suffering. Tongue was coated, dry, and quite red at the tip; when asked to protrude it the mouth was opened quickly, and, without any quivering or deviation to the side, was shown to its fullest extent. Pupils were normal and sensitive to light; no squint; no paralysis. Some fever, temperature being 101° F. in axilla; respirations 16; pulse 60, soft, and compressible; bowels very constipated. Her sleep was continually interrupted by the intense pain in the head, causing a moan that was audible in all parts of the house. Anodynes in large doses were given, with temporary relief. The sleep produced by morphia was somewhat refreshing, though on awakening she was greeted with the same pain. The neck was stiff, the patient moving it like a person having a large carbuncle on the post-cervical region. When she did apparently sleep without being under the influence of an anodyne, delirium of a passive nature was manifested. During the moaning she would turn from one side to the other, and then return, keeping this up for five minutes at a time. When moving or turning, muscular power was not in the least defective, lifting her limbs with great celerity, as one possessing the full strength of health. All these movements, this moaning, etc., occurred during an exacerbation of pain in the head, and as soon as it remitted she would fall into a death-like slumber. Questions were yet answered intelligently and without hesitation. Later, she was unable to get out of bed, and, when lifted, complained of severe vertigo,—so

much so that her head was supported by an attendant while one held the body in position enabling her to pass water, which was done without difficulty. Urine contained no albumen. The extremities were moved when asked, and jerked quickly from the spot when pricked with a pin. Four days before death the temperature fell to 97° F. in axilla, pulse 56, and respirations 12 per minute.

From this time on there were no new symptoms. The right-sided headache persisted with continuous moaning, the patient not becoming at any time unconscious or seeming irrational. Just twelve hours before death she conversed about her trouble quite intelligently, communicating some of her symptoms. At the same time she was raised in a sitting posture for the purpose of administering some milk. Deglutition was then attended with some difficulty, three efforts being made before a tablespoonful of fluid was swallowed. She begged to be let alone, as it was very distressing to be handled. Noises did not seem to create any disturbance. Death was easy, taking place during one of those quiet slumbers, those in the room not knowing it until feeling the coldness of the extremities, and finding themselves unable to arouse her.

Autopsy.—Eleven hours after death, rigor mortis well marked. The external appearances of the body were peculiar, and may, perhaps, have been in some way connected with the pathological condition. There was ecchymosis of the left side of the entire body except the head. The right side was free from any such phenomenon. The patient was lying on her back during the dying hour, so that it could not have been produced by the force of gravity.

It is well known that brain-lesions on one side produce abnormalities on the other side. The disease was situated on the right side and the blood-stasis on the left. It may be merely a coincidence. Nothing of this nature was noticed previous to death. On sawing through the cranium a very offensive odor escaped, producing an audible puff, compelling us to relinquish our labors until the room was ventilated. After removing the calvarium, I found the brain in its external appearances healthy; superficial veins very much distended with coagulated blood. Removing the brain from the skull, and accidentally running the hand over the right side of the cerebellum, I found it quite soft and doughy to the touch; on incising it a very offensive greenish pus occupied a cavity involving nearly the entire right lobe. This cavity was irregular in its outline, and the walls were composed of shreddy, disintegrated brain-tissue. About one and a half ounces of pus were collected. The odor was detected by the friends in the neighboring rooms. The dura mater covering this lobe was healthy, but the pia mater and arachnoid were opaque, thickened, and in spots somewhat disintegrated. The left

and middle lobes of the cerebellum were healthy, only showing a little congestion. In other respects the remaining part of the brain presented nothing abnormal. The petrous portion of the temporal bone was normal; no caries. Internal ear not examined. No morbid connection between ear-trouble and abscess could be found.

Dr. M. Franklin saw the case with me, and pronounced the diagnosis of abscess of the brain. One can plainly see, from the symptoms mentioned, that locating it in the cerebellum would have been guess-work. Experience teaches us that abscess of the brain caused by chronic suppurative otitis is generally located in the cerebrium, and then you have convulsive movements, with mental disturbances. Cases of cerebral abscess have been reported where the patient was rational throughout the entire trouble, not having the slightest symptom to point to such a grave brain-lesion; so that localizing an abscess in the brain is a mere matter of conjecture, though there are instances where a positive diagnosis was declared, and confirmed by post-mortem. This case, in its bearing upon the functions of the cerebellum, does not give any new developments, but, on the contrary, seems to discredit some results deduced from pathological observations, giving the cerebellum a special function from the prominence of one of the symptoms.

One result deduced from experimental research is unsteadiness of gait. One week before death she was fully able to get out of bed to relieve her bowels, and nothing in the way of incoördination of muscular power was noticed. Weakness was prominent, requiring assistance to enable her to return to bed, and when once there she could move the extremities perfectly. There was really no definite test made to ascertain whether there was a loss of coördination; the inability to move well was due to great prostration and weakness, and as soon as the vertigo passed off, which generally happened after being erect for a few minutes, she could stand alone and move her limbs readily with a little assistance.

Another symptom advanced by some, as in a case reported by Dr. Tyson (*Amer. Jour. of Med. Sci.*, July, 1877), is a disposition to fall or pitch forward, combined with persistent vertigo. The patient described this as a sensation as though a heavy weight lay in the front part of

the head, or as though his head was too heavy and tended to fall forward and downward on his breast. Such was not the case in this instance; if anything, she was disposed to pitch backward and throw herself from side to side, this occurring only during exacerbations of pain, to which cause I attributed it, and not to any influence produced by the diseased cerebellum. On being lifted up in the sitting posture to take nourishment her head would fall back and she appeared unconscious, but the contrary was ascertained by requesting her to drink, when there was a prompt response.

Nothnagel (*Berliner Klinische Wochenschrift*, April 15, 1877) says, "Sometimes disease of the cerebellum causes no symptoms during life which could indicate any brain-lesion, even though an extensive destruction of cerebellar tissue exists." Farther on he states that disturbances of coördination occur only when the median lobe (vermiform processes) is directly or indirectly affected by the disease. My case seems to illustrate the above assertions. Were it not for the dull, persistent, gnawing headache, with a history of a chronic discharge from the ear, the diagnosis of brain-trouble could not have been conjectured. Motor disturbances were absent. The entire right lobe was occupied by the abscess, but the middle and left lobes were free from disease. Dr. Kelp (quoted in *Monthly Abstract*, December, 1878) relates the case of a peasant suffering with cerebellar disease, in whom a post-mortem confirmed the diagnosis. He disproves the opinion advanced by Nothnagel, that disturbances of coördination occur only when the median lobe (vermiform processes) is directly or indirectly affected by the disease. The middle lobe was in no way affected, though motor disturbances, such as the gait of a drunken man and a tendency to fall backward, were present; a few months later paralysis set in.

My case, as many others, assists in settling the question as to a part of the function of the cerebellum being connected with intellection. A patient suffering with an abscess involving the entire right lobe of the cerebellum, able twelve hours before death to hold a rational conversation, is incontrovertible evidence. Other symptoms mentioned in published cases were not present in this one. They were probably due to some undetected coexisting affec-

tion, or merely a coincidence. Death was by exhaustion, the vital powers gradually wasting away, as manifested by the anæmia, debility, and emaciation.

The clinical history of this case has been somewhat detailed, and I have indulged in frequent repetition. As the case is unique, I have purposely gathered as many facts as possible, in order that those who make a special study of these organs may have the benefit of a complete history.

1601 COLUMBIA AVENUE.

HIP-INJURIES, INCLUDING HIP-JOINT DISEASE, AND FRACTURES OF THE FEMORAL NECK, SPLINT FOR.

Read before the Philadelphia Academy of Surgery, June 7, 1880,

BY DE F. WILLARD, M.D.,

Lecturer on Orthopædic Surgery in the University of Pennsylvania.

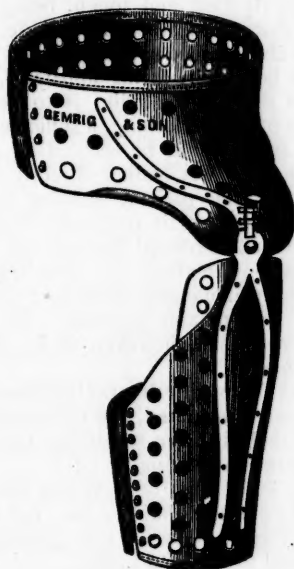
I DESIRE, in connection with the exhibition of the accompanying splint, not only to call attention to its adaptability to ununited or badly-united intracapsular fractures of the femur, but also to recommend it as an exceedingly useful support in the disabilities following sprains, lacerations, twists, and dislocations (congenital or traumatic) of the coxo-femoral articulation. Of its use in hip-joint disease, I would say here that it is of the greatest advantage in non-acute cases in the first stage, and in a large number during the other stages.

I have for several years been in the constant habit of fixing this joint in fractures of the upper portion of the thigh, and in all hip-injuries and diseases, by permanent dressings of binders' board, starch, felt, plaster of Paris, silicate of soda, etc., especially in the case of children; but the great inconvenience—in fact, the impossibility—of sitting while encased in one of these dressings, if properly applied,—*i.e.*, so as to embrace the thorax,—did not force itself upon my mind until I was obliged personally to resort to the use of such a dressing for the disability following a laceration of the ligamentum teres caused by a violent twist of the leg.

One has but to try the experiment to find that a position other than standing or lying is absolutely incompatible with comfort or the power to pursue any ordinary avocation.

I had often wished to make a joint in my hip-disease dressings, especially in adults who were obliged to attend to business, but, although familiar with the use of leather and felt for spinal dressings, it had not occurred to me to apply them to the hip until I chanced to see a leather apparatus for the relief of a paralytic trouble.

The difficulty with an ordinary jointed splint, however, would be that it would not put the hip perfectly at rest; and I accordingly have had Mr. Gemrig make me the steel joint which you see here, and



which can be locked and unlocked at pleasure, thus rendering the hip perfectly fixed until just at the moment of sitting, when by lifting the bolt (which can be easily done through either a gentleman's or lady's clothing) a perfectly movable joint is secured.

The method of constructing this apparatus is first to make a mould, by plaster of Paris bandages, of the body as high as the sixth dorsal vertebra behind and the lower limit of the ensiform cartilage in front, in order to secure a firm thoracic support; thence downward, covering in the pelvic region as low behind as the commencement of the internatal crease and in front to the summit of the pubis; thence over hip, buttock, and thigh to a point about three inches above the knee-joint. This

mould can be best taken over a light pair of bathing or other closely-fitting drawers. When thoroughly hardened, it is to be slit up, removed, and from it can be made a plaster cast which will be the exact shape of the individual to be fitted, every point and irregularity being represented.

Upon this cast wet leather is stretched and rubbed and worked until it exactly conforms itself to the surface, when it is allowed to dry *in situ*, the result being a perfect fit.

This leather is so tanned by Mr. Gem-rig that, while it is exceedingly light, it is perfectly hard and tough, being much better than sole-leather or raw hide.

The above process, though costly, gives a most beautifully fitting apparatus, but I believe that, as the splint is to be worn outside of underclothing, a sufficiently accurate splint could be secured by simply applying the wet leather directly to the person of the patient, shaping it, and allowing it to remain in place a short time until it had hardened just enough to retain its conformation, thus avoiding both the plaster mould and the second cast, and saving considerable expense. The first-mentioned plan, however, is by far the better one.

When thoroughly dry, the body and thigh portions are separated, and connected by a joint attached to two spreading steel arms, as seen in the drawing.

This joint must be a strong one, and should be made double,—*i.e.*, not with a simple rivet, but by the same process as is employed in artificial limbs.

In the lower section is a mortise or slot (*a*) into which fits the bolt (*b*), worked (through the clothing) by the head (*c*), and thus perfect fixation is secured.

This bolt slides easily through the eyelets (*d, e*), and is retained in its place when lifted by a spring pressing like a finger against its side. The unlocking can be done in a second, during the act of sitting down. The whole splint is perfectly simple and can hardly get out of order. It is to be laced down the front of the abdomen and thigh.

The steel thigh-pieces could be united into one and continued down to the shoe; but, even though this be done, I consider the enveloping thigh-band as one of the essentials for fixation.

The numerous openings (*f, g, h*) render the apparatus lighter and give slight vent

for exhalations. The total weight for a man weighing two hundred pounds is but forty-five ounces.

The joint allows only the hinge-motion, a matter which is of decided advantage in twists or lacerations, and also in hip-disease, where the round ligament is involved, as rotary and lateral motions would tend to prevent the needed repair.

To render the apparatus comfortable, it is necessary to cut away certain portions after the patient has worn it, especially the part in front beneath the ribs and above the groins. This can be narrowed down greatly so as to give comfort in sitting, for as the leather is stiff all necessary support is gained by the broad posterior portion, which embraces pelvis and thorax. The edges can then be padded with curled hair over salient points, and it will be found that greater ease is obtained by taking its weight off the hips by means of suspenders over the shoulders.

When locked, it is surprising how the weight of the body is transferred to the thigh through the medium of the steel without any strain upon the natural joint.

In the disabilities following injury I can testify that it is of the greatest service, and I have found it of marked benefit as a support in the late treatment of morbus coxarius, enabling fixation or mobility as desired, and so taking off weight from the impaired joint-structures that the crutches can be dropped at a much earlier period than would otherwise be safe.

It is applicable to a limited number of hip-disease cases,—*i.e.*, those in whom the inflammatory symptoms are not acute, in either first, second, or third stage. It should always be used, of course, in connection with the plan of crutches, and a high shoe upon the sound foot. Thus combined, I believe that it furnishes all the desirable points to be gained in the treatment of this terrible disease, since, while it gives absolute fixation at will, it also allows the patient to go about his ordinary out-door pursuits and yet to sit at comfort. All hip-disease splints do good only by fixation, and there is not one which is effectual if the weight of the body is thrown upon the limb.

To supply the lacking power of steadying the pelvis upon the thighs in cases of fracture of the femoral neck, and in instances of congenital dislocation of the head of the thigh-bone, I believe this splint

offers great hope, although I have not, until recently, had opportunity of testing it, and, of course, the future alone can decide.

1626 CHESTNUT STREET.

A CASE OF EMPYEMA WITH A GASTRIC FISTULOUS OPENING—TREATMENT WITH SULPHIDE OF CALCIUM—RECOVERY.

BY THOMAS H. STREETS, M.D.,

Passed Assistant-Surgeon, U.S.N.

EDWARD J., ordinary seaman, aged 22, a native of Sweden, received an injury while employed in the English merchant-service. He was engaged in turning a boat bottom side upward on the deck of the ship, when he slipped and fell beneath the boat, the gunwale striking him on the left side of the chest. He was immediately taken to a hospital in Lisbon, where he remained six months. Twice subsequently he received hospital treatment for shorter periods for the same injury. He enlisted in the United States naval service, January, 1878, and in the March following was admitted to the sick-list of the ship on which he served, with sharp, stabbing pains in the left side and symptoms of pleuritic effusion. In May he was sent to the Shanghai Civil Hospital, where he remained under treatment for ten months. March 1, 1879, the patient was transferred to the United States Naval Hospital at Yokohama, Japan. The hospital-ticket which accompanied him gave his condition as follows: "Thin and debilitated, and is said to occasionally cough up a pint or so of blood. Has occasional comatose attacks, wherein he takes nothing for twenty-four hours. Pulse 96, respiration 56, this morning" (February 4).

The patient's condition was considered very critical at the time of his admission. He was too feeble to walk, and could speak only in a whisper; he afterwards rallied from the fatigue of the journey, and was able to answer questions. He complained of constant pain in the left side, which was sometimes lancinating. There was so much tenderness and soreness over the whole front of the chest-wall below the nipple that he shrank from the slightest touch with the hands. There was no bulging of the left side; the intercostal spaces were sunken and the side slightly

retracted. No movement of the intercostal muscles; ribs fixed, and respiration largely diaphragmatic. Recti muscles hard and knotted from constant action in respiration. The stomach was forced up under the ribs, and probably adherent to the diaphragm. Percussion-sound below very resonant; lung partly collapsed; respiration mostly bronchial; a faint vesicular murmur heard above; moist râles numerous; respiration on the right side exaggerated. There was no area of heart-dulness; the heart was displaced backward, and the sounds were almost inaudible. The lungs in this case probably became adherent to the heart, and drew it away from the wall of the chest.*

In addition to these thoracic symptoms, the patient was troubled with vomiting of blood and pus. Food occasioned vomiting, and it could be taken only in small quantities at a time and in a liquid form. The vomited matter, when not mixed with the food, was usually bright red, flecked with pus and with occasional streaks and spots of black, grumous blood. He likewise evacuated blood and pus through the intestines, and a constipated condition of the bowels added materially to his disquiet. According to the patient's statement, before he began to evacuate the pus through the stomach and bowels the left side of the chest was bulged out more than the right side, but immediately after this trouble began it subsided. At first, cough was not a prominent symptom in the case, but it became more marked later, the breath became fetid, and he expectorated considerable quantities of matter.

At times the patient would be bright and cheerful, feeling stronger, and desiring food and to be up and about the ward. The hemorrhages would diminish and breathing become freer,—not so diaphragmatic in character, and râles fewer. This state, however, usually lasted but a short time, when he passed into the opposite condition; he became very irritable, refusing to take anything, and would eventually lapse into a semi-comatose state. He lay on the affected side, breathing rapidly and laboriously, with tracheal rattling. The vomiting would cease and the pulse become a thread. In the warm weather of summer he required extra blankets on his bed and hot-water bottles to keep his

* Art. "Pleurisy," Ziemssen's Cyclopædia, p. 651.

extremities warm. He invariably rallied from these semi-comatose states when the vomiting recommenced, and they were probably occasioned by some obstacle to the free discharge of pus from the pleural cavity. As long as there was a free discharge he apparently suffered no serious discomfort, but as soon as the fistulous opening was blocked up he lapsed into the state just described. He continued in this way, up and down, for three and a half months, with death at any time expected. Milk and wine—the former with lime-water—were administered continuously. The only drugs that were given were Basham's mixture and an occasional tonic when the stomach would tolerate one.

It will hardly be doubted, I think, that we had here to deal with a fistulous opening from the pleural cavity into the fundus of the stomach. We have a history of injury to the chest-wall; a subsequent attack of pleurisy, with bulging of the left side from the accumulation of fluid, and its sudden subsidence when the discharge of pus began through the stomach and bowels; the symptoms of chronic pleurisy when he came into the hospital; the abnormally high position of the stomach under the ribs, and the tympanitic resonance of the lower portion of the chest.

On June 16 I began to give calcium sulphide, one grain daily, in one-fifth-grain doses. The aqueous solution was prepared freshly every morning, as recommended by Ringer. I was induced to give this medicine a trial on account of the strong testimony in its favor by Ringer in his "Medical Therapeutics," hoping that it might have a wider range of usefulness than in the treatment of boils and scrofulous abscesses, and that it might influence favorably suppurating surfaces generally. Improvement commenced immediately the administration of the medicine was begun. The cough gradually ceased, and likewise the vomiting. Formerly the patient shrank from the slightest contact of the hand to the left side; on the 20th of June, or on the fourth day after he began taking the remedy, that side could be percussed and handled as much as desired, and no soreness or tenderness complained of. On the 25th I find it recorded that there was no further vomiting or purging of blood and pus; no cough; general health greatly improved; getting stronger daily; good appetite, and can eat the regular hospital

ration. Lung expanding; vesicular murmur much louder.

June 30, a Board of Medical Survey, composed of three medical officers of the navy, was held upon the case. He was considered unsuitable for further naval service, but was deemed in a fit condition for discharge from the hospital and the service. On July 2 the recommendation of the Board was carried into effect, and the patient commenced business in Yokohama, as a saloon-keeper, with the money which had accrued to him while sick.

U. S. NAVAL ASYLUM, YOKOHAMA, JAPAN.

HOMATROPINUM HYDROBROMATUM.

BY P. D. KEYSER, M.D.

ON the 8th of August, 1879, Prof. Ladenburg, of the University of Kiel, presented to the Berliner Academie der Wissenschaften a new derivative from belladonna, which he had discovered and called homatropin or homatropinum hydrobromatum. It is an oxytoluyltropine, and formed by the treatment of amygdalinate of atropin (*mandelsauren atropins*) with hydrochloric acid.

In the winter of 1879-80, Prof. Ladenburg gave a solution to Prof. Völckers, of Kiel, to test its mydriatic power in his ophthalmological clinic, who reports (March, 1880) "that he found a one-per-cent. solution dilated the pupil in about ten minutes, but in the greater number of cases not *ad maximum*. Often a slight reaction of the pupil remained. The accommodation is also paralyzed, but not so completely as by atropin. Already in six hours has the action of the homatropin considerably passed off; and after twelve to twenty-four hours every trace of mydriatic action and paralysis of accommodation is gone.

"He believes that homatropin will replace atropin in cases where it is necessary to dilate the pupil for the purpose of making a thorough ophthalmoscopic examination of the fundus, etc."

After this discovery by Prof. Ladenburg, Mr. E. Merk, chemist, of Darmstadt, made the salt, some of which he sent to Prof. v. Arlt, in Vienna, for use, and which he (Arlt) handed to his assistant, Dr. E. Fuchs, for trial, who gives his examination thereof in an article in the June number, 1880, of

the *Centralblatt für Praktische Augenheilkunde*, as follows:

"My experiments were made on a number of healthy persons, and in one eye a one-per-cent. solution of homatropin was instilled, while in the other a solution of atropin (1.5000 and 1.10,000) was dropped.

"The accommodation and enlargement of the pupils were at first examined every five minutes, and further on every two hours. The experiments gave the following results:

"1. The one-per-cent. solution of homatropin caused a dilatation of the pupil in twenty minutes, which reached its maximum in sixty to seventy minutes. The pupils were then 7 mm. and over in diameter, but still not as large (well dilated) as where a stronger solution of atropin was used; there was also a slight ability of reaction remaining.

"After two to three hours the action began to recede, and after five hours generally nothing was noticeable. After ten to twelve hours there was not the least trace of dilatation; in some cases the pupil was smaller than before the instillation. This is also sometimes observed after the discontinuance of instillations of atropin.

"In comparison with a weak solution of atropin (1.5000 or 1.10,000, the action of these strengths was almost the same), the dilatation of the pupil began ten minutes later than with the homatropin. In some cases it reached the full extent, while in others, not so great as in the homatropin. After twelve hours the mydriasis is very perceptible, particularly when comparing it with the other eye, in which homatropin had been instilled, and especially when the pupil is frequently smaller than before the beginning of the examination.

"2. The paralysis of the accommodation begins ten to twenty minutes after the instillation of the homatropin, and reaches its maximum in forty to eighty minutes. It was, like the dilatation, never absolute; in one case there was still 1.5 D. remaining. After five hours the paralysis of accommodation had passed entirely away; in some cases the near point approached nearer than it was before the instillations.

"After the use of a weak solution of atropin, the paralysis of accommodation begins in about the same time as with homatropin, reaches, however, a much less degree, and passes off as quickly as when the homatropin is used. Also here,

a recession of the near point for a short time after the paralysis of accommodation had passed away could be observed.

"The comparison of homatropin with atropin in weak solutions gives, in relation to the accommodation, hardly a difference; but as to the dilatation of the pupil, the action begins earlier and passes off sooner than with atropin.

"Herein lies the superiority of the homatropin when it is desired to dilate the pupil for ophthalmoscopic examination. Generally after five hours the pupil has its normal size, and the patient has no further trouble."

Having procured some of this salt for the purpose of studying its action in the eye and comparing it with that of atropia and duboisia, I began the instillations with a weak solution of one grain to the ounce of water, then gr. ij up to gr. x ad 3i.

My results accord exactly with those of Völckers and Fuchs, that complete paralysis of the accommodation does not take place in a great majority of cases, and that the pupil is not always dilated *ad maximum*.

In the weaker solutions I think there is not sufficient strength to gain these points, while with the stronger solutions there is so much irritation as to cause an antagonistic action in the circular fibres of the sphincter pupillæ, just as we find in all irritations of the conjunctiva and cornea, causing some contraction of the pupil.

Even with a one-grain solution there is a slight irritation of the conjunctiva, which, however, soon passes off; but when a four-grain solution is used, in five or six minutes there come on a severe burning, smarting pain, and hyperæmia of the conjunctiva, which continue for some time. With an eight- or ten-grain solution quite a severe acute conjunctivitis arises, often requiring applications of cold water to subdue it.

This irritation alone will prevent its general use or displacement of atropia or duboisia, except in weak solutions to dilate the pupil for a short time to make an examination of the fundus.

In comparison with duboisia, I find that it does not begin its action any sooner, but passes off much more readily; completely in six to twelve hours, while duboisia requires from one to four days, according to the strength of the solution used.

Duboisia has also the advantage that it does not irritate the conjunctiva, and di-

lates the pupil *ad maximum*, and completely paralyzes the accommodation. Care should be taken when using it to prevent any from flowing down the tear-duct and causing toxic effects.

In examining cases of refraction under homatropin with comparatively weak solutions, the paralysis of accommodation was often of so short duration and so incomplete that changes took place while the testing was going on and before the defect could be accurately determined. With the stronger solutions, the conjunctival irritation was often so great that the patient was not at rest, and the determinations were very unsatisfactory.

In five out of my twenty cases, after paralyzing the accommodation with a four-grain solution of homatropin as far as it could, I found that on instilling a two-grain solution of duboisia the pupil became more dilated, and the paralysis of accommodation was further increased; thus showing the greater power of duboisia.

There is no doubt, however, that homatropin is a great acquisition to the ophthalmologist, as well as an advantage to our patients, in so far as its action passes off so rapidly and relieves the long and disagreeable feeling caused by atropia or duboisia, in cases where a temporary dilatation of the pupil is necessary for the purpose of correct diagnosis in troubles in the posterior chamber and fundus of the eye.

A CASE OF UNUSUAL INJURY OF THE FACE.

BY B. L. MILLIKIN, M.D.,

Resident Physician, Children's Hospital, and ex-Resident Physician, University Hospital, Philadelphia.

R. B., an Italian, æt. about 30 or 35, came under my care on July 28, 1880, suffering from a severe and unusual injury of the face.

While inspecting a coal-mine with a lamp, on the 17th of July previous, a portion of the roof of the mine fell, striking him upon the right anterior aspect of the face (so far as can be determined), and producing severe injuries. He was not unconscious when seen by another physician shortly after the accident, nor were there any symptoms of injury to the brain or its membranes, such as concussion or compression.

Upon making an examination, I found the following condition of the parts: externally there were several lacerated wounds,—one extending just above and parallel to the right eyebrow, one down the median line of the

nose, and one extending from the border of the lower lip down the median line to the point of the chin,—all partially healed when seen, ten days after the injury.

There were no other evidences of any external injuries.

Upon examining the bony structures, I found more serious trouble. The inferior maxilla was fractured through the symphysis, and the fragments were freely movable; the nasal bones had sustained a compound comminuted fracture, several loose pieces having been removed by the physician first in attendance; the superior maxillæ had sustained fractures of both alveolar processes, all the teeth of either side remaining *in situ*, and it is also highly probable that there were other fractures of the bodies of the superior maxillæ, not recognizable at the time of examination.

Besides these, there was also a separation of the palatine portions of the superior maxillæ in the median line, as well as of the horizontal plates of the palate-bones, to the extent of three or four lines, and the vomer was so thoroughly disengaged from all connection with the palate-bones that it could easily be seen in the open space throughout nearly its entire length.

The soft parts of the palate were torn along the line of separation of the bones up to the junction of the hard and soft palates. Two teeth were missing in front in either jaw, and I removed a small spicula of bone from the median line of the superior maxillæ. It is also probable that there was a fracture or displacement of the pterygoid process of the sphenoid bone.

The treatment was simple and effectual. The parts were thoroughly cleansed by injecting disinfecting washes into the nasal cavity and mouth; a pasteboard cap usually employed in fractures of the inferior maxilla was made for the chin; compresses were applied over the alveolar processes of the superior maxillæ; and, the parts being in good apposition, the whole was held in place by a Barton's bandage firmly applied. Only liquid foods were allowed.

Within two weeks from the first application of the bandage the opening in the palate had entirely closed, and the alveolar processes and other fractured parts were becoming quite firm. At the expiration of four weeks the man left my charge without permission, but at that time the parts had all healed up, and the bone-fragments were solid, and all in good approximation, with the exception of the inferior maxilla, in which there was an unevenness of a line or two in the teeth of the two fragments.

This case is of interest not only on account of its rarity, but also on account of the extensive injury to the hard parts with a limited amount of injury to the soft parts. There was no evidence of any fracture of

the frontal bone along the wound near the eyebrow, nor were there any signs of injuries to the soft parts other than those enumerated. There was neither scar nor abrasion of the upper lip, over the alveolar processes, or the molar bones, beneath which the most serious injuries were inflicted.

The case is also of interest from the simplicity of the treatment employed, as well as from showing how quickly nature, when not too much interfered with, will restore serious and alarming injuries.

THE KITTANNING IRON-SPRING.

BY EDWARD T. REICHERT, M.D.,

Demonstrator of Experimental Therapeutics, University of Pennsylvania.

THE fact of the mere discovery of a new iron-spring would probably not elicit the least interest in the practitioner of medicine, since so many of these springs now abound whose medicinal waters are running to waste; but when it is found that in the water of this new spring there abound virtues far surpassing any of those of others of a similar character yet analyzed, and whose combinations and proportions of medicinal principles are something beyond precedent, it will not be amiss to give a passing and anticipatory notice of what is undoubtedly one of the most valuable of all recent acquisitions to our materia medica.

The undoubted efficiency of iron-waters in cases where none of the officinal preparations of iron could be tolerated does not appear to be so generally known to the profession as it should be, but even those few practitioners who have availed themselves of this bountiful product of nature's mysterious laboratory have used it at a disadvantage, because of the relatively small amounts of iron (often only the fraction of a grain in a gallon) contained in them, and, as a sequence, the very large proportion of water necessarily consumed in order to obtain the desired chalybeate effect. And notwithstanding the very small proportion of iron in many of these waters, and the absence of other desirable ingredients, the iron is frequently in a combination not nearly so desirable as it is in the subject of the present article, for, if Mitscherlich be correct in his deductions, the proto-salts are more readily absorbed

than the sesqui-salts. It is an acknowledged fact that where iron is administered in any of the officinal forms a tendency to constipation is caused; but, owing to the large amount of salines in this water, this tendency is entirely overcome and the bowels maintained in a soluble condition, the kidneys are agreeably stimulated, and the general digestive and assimilative tone is increased.

The following analysis was made by Professor F. A. Genth, of the University of Pennsylvania, giving the contents per gallon:

	Grains.
Sulphate aluminium . .	1.52753
" ferrous oxide . .	24.49271
" magnesium . .	26.84937
" calcium . .	65.12190
" sodium . .	8.72585
" potassium . .	.90762
Phosphate calcium . .	.11036
Bicarb. calcium . .	16.05445
" magnesium . .	.24629
Chloride sodium . .	.64741
Salicylic acid . .	1.17201

The iron is precipitated after exposure to the air, and even after it has been bottled, but it remains in permanent solution if the water is charged with carbonic acid gas and kept tightly stoppered. The "*Kittanning Mineral-Spring Company*" (Kittanning, Armstrong county, Pa.) has furnished me with water in this condition, and I have used it in two cases with marked benefit where iron in officinal form could not be tolerated.

NOTES OF HOSPITAL PRACTICE.

UNIVERSITY HOSPITAL.

CLINICAL SERVICE OF WILLIAM GOODELL, M.D., PROFESSOR OF CLINICAL GYNECOLOGY IN THE UNIVERSITY OF PENNSYLVANIA.

Reported by CHARLES W. DULLES, M.D., Surgical Registrar to the University Hospital.

OVARIAN TUMOR—OVARICTOMY.

THE patient was a colored woman aged 47 years, who had been tapped,* but in vain, before the medical class four days previous. The operation was done in a private room in the Hospital of the University of Pennsylvania, May 9, 1880, with

* See Philadelphia Medical Times for September 11, 1880.

use of the spray of carbolic acid solution, all instruments and sponges being treated also with carbolic acid solution. The abdomen was washed and wiped off with the same. The patient being rendered unconscious with ether, the first incision was made with a scalpel in the median line, about midway between the umbilicus and symphysis pubis,—a distance now, owing to stretching, of about ten inches. The incision was three inches long. As soon as the skin was cut through, a small quantity of gelatinous fluid escaped, which had come out in the line of the puncture made at the tapping, four days before, and burrowed an inch or two under the skin. There was a little bleeding from the superficial veins, which were varicose; but this soon ceased. The incision was now carried down through the peritoneum, and at once there gushed out a large quantity of serous fluid. Presently the opening was occluded by an irregular mass of colloid material, which had to be pressed aside to permit the flow of fluid from the abdomen. After some quarts had come away, this began to bring with it large diffuent masses of colloid matter, mostly of a straw color, but mingled with soft, white, caseous patches. After a little this became tinged with blood. Next, when the incision had been enlarged somewhat, there came an irregular mass, of mottled color, resembling in parts the colon, as if with very thin walls, and distended with jelly-like contents. Then a thin membrane appeared, looking like omentum, but shreddy, and resembling some gelatinous sea-weeds. This hung down over the upper and anterior part of the tumor. It had numerous enlarged veins. For the purpose of further exploration the incision was now continued, with scissors, upward and around the umbilicus. Inserting his hand, Dr. Goodell found the left ovary, but not the right. Working upward, adhesions were found of such a character that it seemed probable the tumor was attached to the mesentery. Pushing the exploration still farther, these were discovered to be simply the attachments of the colloid masses to the inner wall of a cyst which had burst, and collapsed like wet parchment. There was a great difference in different parts of the sac-wall. The left side was very thin, and had evidently burst, allowing the contents to escape into the general cavity of the abdomen. As much of the soft mate-

rial as could be was now scooped out with the hand, and the remaining mass, about the size of an adult's head, lifted up so as to permit a more careful examination of its attachments.

It now became clear that the left ovary was intact, and that the tumor was a cystic tumor of the right ovary, with colloid and serous contents, which had burst and diffused itself through the abdominal cavity. It was firmly attached to the right broad ligament, and as well to the womb of that side. The uterus was normal in appearance, but dragged upward, so that its cervix was clearly above the level of the pubes. The pedicle was transfixed with strong silk (carbolized) and doubly ligated. The attachment to the broad ligament was treated in the same way, and both cut off. The remains of the tumor were now lifted out and removed. Several silk ligatures had to be applied to bleeding points on the womb. The abdominal and pelvic cavities were now sponged out. (It is to be remarked that the intestines and other abdominal viscera looked quite healthy, there being no evidence of local or general peritonitis whatever.)

A small sponge was now placed in the pelvis, and a large flat one upon the intestines, below the line of the incision, which was included in interrupted silk sutures, very long, and placed at intervals of about half an inch. When all had been placed, the edges of the incision were drawn apart, the sponge from the pelvis taken out between them, as well as that just below the wound, which had caught the little blood that oozed from the edges while the silk threads were being put in place. Everything being ready, the ends of the sutures were drawn up and tied, making a close and firm approximation of the sides of the incision. The patient was now cleaned, and the wound covered with a thick layer of antiseptic and absorbent cotton, while a binder was made to include all. She was then removed to bed.

[NOTE.—After the operation the patient reacted apparently very well, and for ten days there seemed to be a good promise of her recovery. After that time, however, she developed symptoms of peritonitis, and died on the thirteenth day after the operation. The mass removed from her abdomen at the time of operating was enormous, and estimated to weigh above seventy pounds.—REP.]

TRANSLATIONS.

CONGENITAL SCLERODERMA OF ONE-HALF OF THE FACE.—A. Pawlowski (*Cbl. f. Chir.*, 1880, p. 591; from *Wratschebnyja Wedomosti*) reports the case of a man of 26, who was brought to the clinic of Prof. Pelechlin. On his right cheek could be seen an apple-sized, immovable tumor, without defined outline, merging in the surrounding skin. In the centre its consistence was firm, but it grew softer towards the periphery. The skin covering the tumor was normal in appearance, but could not be pinched up. The mouth was movable, and swallowing could be performed without difficulty, but the right cheek was absolutely immovable.

The tumor had existed from birth, and had not changed in size in the patient's recollection. It was sensitive to cold, exposure causing it to become red and swollen. On closer examination the facial nerve of the right side, except the twigs going to the eyelids, appeared to be perfectly paralyzed. The sense of touch, in comparison with the left side, was decidedly diminished. Electric conduction, on the other hand, seemed heightened. An elliptic piece was cut out of the middle of the tumor, and it was subjected to firm pressure alternated with the application of the galvanic current. In a short time the skin began to soften, and before long could be picked up in folds.

Microscopic examination of the affected skin showed the epidermis and rete increased in thickness, the ducts of the sweat-glands enlarged and tortuous. There was cell-proliferation in the sweat-glands themselves and in the sebaceous glands as well. Hæmatoxylin staining showed the whole thickness of the cutis, the reticular layer, and particularly the subcutaneous connective tissue, filled with vessels of various size. The adventitia of the vessels was infiltrated with white blood-corpuscles; the same infiltration could be observed in various localities in the tissues, sometimes in groups, sometimes in distinct series. They were more plentiful in the rete. The pars reticularis was almost entirely transformed into a compact mass of connective tissue; the hairs were short, brittle, and increased in number. The subcutaneous adipose tissue was wanting in most specimens; in some it took the form of small strips of fat cells compressed

by bands of connective tissue, or of small masses of fat surrounded by firm connective tissue. In addition to the history of this case, Pawlowski gives a full bibliography of the subject, and points out the novelty of his own successful treatment.

REMOVAL OF THE VAGUS WITH A CERVICAL TUMOR—CURE.—Professor Lücke (*Cbl. f. Chir.*, 1880, No. 36) reports the following case. A woman whose sister had died with lymphoma malignum of the neck applied for relief from a tumor, oval in shape, rather hard, movable, and situated in the right submaxillary region. It was removed without difficulty, and the wound healed by first intention. On examination of the tumor by Professor Recklinghausen, it was pronounced a hyaline cancrroid, connected with but not implicating the salivary gland.

About two years later the patient again applied for treatment, the disease having returned in the cicatrix and also under the right sterno-mastoid. There was no functional disturbance; the patient's health was fair. The smaller tumor in the scar was removed with some difficulty, being found to lie more deeply than appeared from its growth externally. There was much venous hemorrhage. The new, larger tumor was laid bare by an incision along the edge of the muscle, which was closely connected with it. On cutting this above and below, the carotid was found separable from the tumor, but the latter had grown completely around the jugular vein and the vagus. The vein was close to the upper border of the clavicle and above the tumor, and the piece was then removed with the tumor and with a portion of the vagus twelve centimetres (four inches) in length.

No noteworthy alteration in respiration and pulse occurred at the moment of section. The wounds healed rapidly. Five months later the patient showed easily-excited but otherwise normal respiration, the right arm was slightly weaker than the left, and the shoulder could be raised with difficulty. The right side of the neck was flattened; the pulsations of the carotid could be felt along the whole course of the scar. Pressure on the latter, particularly at the upper and lower stump of the muscle, aroused fits of coughing. There was suspicious hardness in the submaxillary scar, but no positive return of the growth. The right side of the face, particularly about the cheeks, showed a hy-

peritrophic condition, most likely the result of the ligature and removal of the common jugular vein.

VARICOCELE AND ITS TREATMENT.—C. Nebler (*Inaug. Diss.*, Breslau, 1880; *Cbl. f. Chir.*, 1880, p. 635) urges the radical operation,—double ligature after laying open and excision of a section of the venous plexus,—with antiseptic precautions. He says this is absolutely without relapse and usually harmless. His views are based on five cases operated upon by Fischer. Nebler also concludes that atrophy of the testicle, which was observed as the result of two operations in Halle and once by Miflet, is not necessarily the result of the operation, but of the simultaneous wounding and ligature of arteries. Experiments on animals are brought forward by Nebler in support of this view. He regards the older operations as frequently dangerous.

TUBERCULOSIS AND PREGNANCY.—Gaulard (*Thèse de Paris, Le Progrès Méd.*, 1880, p. 670) says that pregnant women are far from enjoying that immunity from acute and chronic disease which used to be supposed. Pregnancy exercises anything but a salutary influence on the course of tuberculosis. The puerperal condition aggravates phthisis, as does nursing. Gaulard brings forward a large number of cases in support of this view. In one series of thirty-two cases, phthisis existed before pregnancy; the aggravation of the disease was, so to speak, constant. In a second series, tuberculosis appeared at a more or less advanced stage of pregnancy, and became worse and worse until its termination. Finally, in a third series of cases, phthisis did not seem to show itself until a period more or less prolonged after accouchement. It seems to Dr. Gaulard that in these last cases the puerperal condition exercised considerable influence on the appearance of the disease. On the whole, the influence of pregnancy, as shown by Gaulard's statistics, is unfavorable: in pregnant women phthisis runs a more rapid course than in other women.

TREATMENT OF CYSTITIS.—Diday (*La France Méd.*, 1880, p. 523) recommends patients suffering with this disease to drink daily a large glass of flaxseed tea mixed with orgeat or other flavor, or with some mineral water. A stimulating plaster twice the size of the palm is to be placed over the kidneys, and if necessary retained in position until it produces an eruption. The

patient should take great care to resist the inclination to pass the last drops of urine. This is very important, and exercises an immediate happy influence on the tenesmus and the exudation of blood. In addition, a pint of an infusion containing the following powder is to be taken twice daily: \mathcal{R} Folii hyoscyami, gr. xii; sacch. alb., gr. ii.—*M.* A slight narcotic effect is produced by this infusion, which is favored by inunctions in the perineum with belladonna ointment, or by rectal suppositories containing one and a half to three grains of extract of belladonna. If the pain persists, the narcotics can be increased to a toxic degree, carefully watching their effect. During the morning the patient drinks every half-hour a tablespoonful of an infusion of forty-five grains of hyoscyamus in three ounces of water. In a few hours relief is almost always obtained. The medicine may be begun again after a few days if the trouble returns. Ice is indicated in anal tenesmus and enlargement of the prostate. For the prevention of ammoniacal urine the following prescription is recommended:

\mathcal{R} Acid. benzoic., gr. xv ad xl;
Glycerinæ, f3i ad 3iss;
Syrupi acaciæ, f3v.—*M.*

Sig. Half a teaspoonful to a teaspoonful daily.

TREATMENT OF FISSURE OF THE ANUS.—In an unusually painful case of this character Dr. Glénérat (*Bull. Gén. de Thérap.*, vol. ii., 1880, p. 269) used the following means of relief. The patient took about a drachm of calcined magnesina in syrup every evening before retiring. In the morning she was seated upon a commode containing a boiling-hot decoction of belladonna leaves kept hot by fresh additions of the same, and the vapor confined by a wrap around the seat and body of the patient. After a few minutes efforts at defecation were made, which at first were very painful. When the pain began to lessen, the efforts were again made, and the pain became less and less. After the stool was finally passed, a few minutes more were spent over the belladonna vapor, and then the following suppository was placed in the rectum:

\mathcal{R} Ol. theobromæ, 3ijss;
Ext. belladonnæ, gr. iij;
Ol. amygd. dulcis, q. s.—*M.*

The ointment was smeared upon a wisp of lint, and this formed the suppository, which

was renewed if it fell out during the day, and was changed every morning after the fumigation. After eight days of this treatment the patient was much better: the magnesia was stopped on the tenth day, the suppository on the fourteenth, and the fumigation at the end of the third week, though the patient was recommended to use the latter from time to time.

SYMMETRICAL NEURALGIA IN DIABETES.

—M. Worms (*La France Méd.*, 1880, p. 627) thinks that no new fact which may aid in the rational classification of the different varieties of diabetes ought to be neglected. For this reason, he communicates notes of two cases of symmetrical neuralgia in the sciatic and in the inferior dental nerves occurring in the course of diabetes. This variety of neuralgia has not heretofore been described. M. Worms's conclusions from these cases are as follows:

1. There is a peculiar form of neuralgia which may occur in connection with diabetes, and which is characterized by affecting two symmetrical branches of the same nerve.

2. Thus far this form of neuralgia has been observed only in the dental and sciatic nerves.

3. Diabetic neuralgia appears to be much more painful than ordinary neuralgia.

4. It does not yield to the ordinary treatment of neuralgia (quinia, morphia, bromides); it becomes aggravated *pari passu* with the progress of the diabetes.

M. Worms classes this form of neuralgia with the diathetic varieties observed in gouty and chlorotic persons and in lead-poisoning. He leaves undetermined the question as to the existence of any perceptible lesion of the nerves or neurilemma.

SUB-UNGUAL SARCOMA OF THE LEFT MIDDLE FINGER.—Kraske (*Cbl. f. Chir.*, 1880, No. 38) gives the following instance of this rare form of disease. A woman of forty-two had felt a painful sensation under the nail of the left middle finger for twelve years, increased on the least pressure. The trouble was attributed to a severe squeeze. Repeated scraping of the nail over the painful spot gave only temporary relief. When first seen by Kraske, July 28, 1880, a linseed-sized blue spot could be seen under the nail, pressure upon which caused the most acute pain. The nail showed otherwise nothing abnormal, but, for reasons to be given, a sub-ungual tumor was

diagnosed, and the finger-tip was amputated without the removal of the phalanx and with a volar flap. The wound healed by first intention, and the patient was discharged a few days later quite free from pain. Examination (the details of which are given in the original) showed the tumor to be an angio-sarcoma. The diagnostic point upon which Kraske depended in deciding on the nature of the tumor was its peculiar saggillation-like appearance, an aspect which has been noted by Volkmann in a similar case, terminating fatally, however, by general sarcomatosis. This appearance is caused by congestion of the blood-vessels around the tumor, which is compressed between the nail and the phalanx.

TUBERCULOUS ULCERS OF THE TONGUE.

—Reimann (*Inaug. Diss.*, Breslau, 1880; *Cbl. f. Chir.*, 1880, p. 633) says that this affection was first described by Portal, in 1804, and has since attracted increasing attention. It shows itself in the form of tumor and ulcer (probably stages of the same process), solitary or multiple. The latter form appears to be the rarer, as among eight cases collected by Reimann only one was in the form of an ulcer. The point of election appears to be the tip of the tongue and its border. The affection is usually secondary to tuberculosis of the lung and intestine. Since it is frequently painless, the differential diagnosis between this affection and syphilis or carcinoma is sometimes difficult, at least when the disease of the internal organs is not perceptible. The treatment of tuberculous ulcers of the tongue, when solitary, is usually excision. In most cases this is successful; but occasionally the wound made becomes itself a tuberculous ulcer.

TREATMENT OF EXOPHTHALMIC GOITRE BY DUBOISIN.—Dr. Dujardin-Beaumetz (*La France Méd.*, 1880, p. 571) has substituted duboisin in hypodermic injections for atropin in the treatment of cardio-thyroid exophthalmos. In two cases where he has employed this treatment he has obtained great diminution of the palpitations and of the vascular throbbing. He has also observed a ready accumulation of doses, although he has injected only very small quantities of the drug,—a quarter milligramme to a half milligramme at the most. At the end of a few days unquestionable signs of poisoning showed themselves, analogous to those brought about by bel-

ladonna. The solution used for the injections was composed of neutral sulphate of duboisin one centigramme, distilled water twenty grammes. Each syringe of one centimetre cube contained a half milligramme of the salt of duboisin.

DIFFERENTIAL DIAGNOSIS BETWEEN HEPATIC AND NEPHRITIC COLIC.—In an excellent article pointing out the characteristic seat and nature of the pain felt in each of these diseases, Dr. Cornillon (*Le Progrès Médical*, 1880, p. 661) concludes as follows: "There is not the least resemblance between the painful points in hepatic colic and those of nephritic colic. In the first place, the latter are incomparably the most severe. In addition, the first are seated at the base of the thorax and above that point, as in the epigastric, cystic, dorsal, and scapular regions, while the pains in nephritic colic are referred to the inferior segment of the body,—the renal, lumbar, inguinal, and testicular regions. In doubtful cases the exact determination of their respective position is an excellent point in the differential diagnosis."

INTERNAL ERYSIPELAS; ERYSIPELATOUS PNEUMONIA; CONSECUTIVE ERYSIPELAS OF THE FACE.—Cuffer (*Cbl. f. Chir.*, 1880, p. 623; from *La France Méd.*) describes a case where fever, vomiting, dyspnoea, and pain in the right lower lobe of the lungs, with apparent pneumonic infiltration of that lobe, was observed eight days before admission to the hospital. Characteristic sputa were not observed,—which threw doubt on the diagnosis. On the third day after admission to the hospital, facial erysipelas, beginning first at the tip of the nose, developed without additional fever. On questioning the patient, it was found that he had shortly before lain in the bed of an erysipelas patient. Cuffer concludes that the disease attacked the lungs first, spreading thence to the trachea, larynx, pharynx, and so to the face.

HEART-DISEASE AND PREGNANCY.—Prof. Peter (Porak, *Thèse de Paris, Le Progrès Méd.*, 1880, p. 671) forbids marriage to a woman with cardiac disease. If she is married, he forbids pregnancy; if pregnant, he forbids suckling. When pregnancy and heart-disease coexist, Porak advises waiting unless some symptoms arise. Should trouble of the heart supervene on the approach of labor, this is to be hastened and terminated rapidly. If the woman's

life is threatened, earlier premature labor, or even abortion, should be induced.

PRURITUS VULVÆ.—According to Martineau (*Le Progrès Médical*, 1880, p. 530) pruritus vulvæ may be due to general causes, such as glycosuria, pregnancy, and nervous perturbation, or it may originate in mere local disorders, as intestinal worms (oxyuris), pediculi, tinea tonsurans, vesical calculi, vegetations or polypi of the urethra, or vulvitis. The general condition of the patient should be very closely looked after, and appropriate remedies should be applied to remove the remote cause of the trouble, whatever that may be found to be.

In the acute stage of pruritus accompanying vulvitis, emollient applications are, of course, indicated. Starch poultices (not linseed, for this decomposes too easily), lotions of infusion of belladonna, aconite, or poppy-heads, or of a weak solution of bromide of potassium or of chloral (three grains to the ounce), may be used. They should be hot rather than cold. Washes of corrosive sublimate of one-per-cent. strength may be employed when the stage of acute inflammation is passed.

Fifty parts of perfectly neutral glycerole of starch, containing one part of the following substances, tannin, calomel, extract of belladonna, or oil of cade, according to circumstances, may be used with advantage. Now and then light cauterizations with nitrate of silver prove advantageous. Révillout has occasionally found that the insertion of slices of citron between the vulva will allay the itching. In chronic cases Dr. Guéneau de Mussy anoints the vulva night and morning with the following:

℞ Glycerol. amyli, 3j;
Potassii bromidi,
Bismuthi subnit., aa gr. xxv;
Hydrarg. chlor. mite, gr. x;
Ext. belladonnæ, gr. v.—M.

The vulva are to be washed with a dilute solution of borax containing a little emollient, as starch.

Delioux de Savignac follows the lotion just mentioned with a powder:

℞ Pulv. lycopodii, 3j;
" bismuthi subnit., 3iiss;
" radices belladonnæ, 3ss.—M.

In very rebellious cases, hip-baths, each containing two to three drachms of corrosive sublimate, first dissolved in dilute alcohol, may be employed.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, NOVEMBER 6, 1880.

EDITORIAL.

INSANITY LAWS.

THE subject of the proper legal enactments for the control and protection of the insane has been of recent times the source of so much bitter writing that we hesitate somewhat in stirring it up. There is one point, however, concerning which action might well be taken at the present time. In several, if not most, of our Eastern States the law is such that in an acute case of mania, in suicide, melancholia, etc., very serious suffering might result, and no doubt has in some instances resulted. In this State the physicians have to make affidavit before a magistrate as to the asserted lunacy of the patient; in Massachusetts a magistrate has to endorse the commitment; in New York some legal officer—the County Judge, we believe—has finally to sign the papers. We believe that the law in New York allows the patient to be put in the asylum and retained there four days awaiting the proper papers; and certainly such is the custom in some or all of the State institutions. This obviates the difficulty of which we are writing; but no such proviso exists in our Pennsylvania law.

Suppose the acute maniac becomes violent on a Saturday evening in this State, nothing can be done legally until Monday; or suppose, under the Massachusetts law, the medical certificate in a similar case has been signed, the magistrate is not to be found, Sunday intervenes, and the requisite formalities are not completed until Monday. Meanwhile, what of the unfortunate patient? What is to be done with him? If poor, he is given over to the care of the police, who are just as

liable to handle a lunatic with violence as they are to abuse an excited inebriate. Moreover, the lunatic, who should at once be sent to an asylum, is confined in the dreary cell of jail or station-house until he can be received into a hospital. Such confinement and such treatment may convert an acute into an incurable mania. If the insane man be rich, he is kept at home, to his own detriment and danger, and to the great distress, and perhaps actual peril, of his family.

At a recent meeting of the Councillors of the Massachusetts State Medical Society the president was requested, by a unanimous vote, to appoint a committee with instructions to consider the necessity of a law that will safely and carefully provide for the insane during the interval that now may elapse between the recognition of the madness and the commitment to the asylum. The need of such provision is not a mere fancy. Some few weeks since, we saw a lunatic in one of our large hotels, just arrived from Cuba, his father almost as distraught as himself with anxiety lest harm should result before he got his son safely lodged in an institution. It being late in the day, only with the greatest difficulty were the necessary formalities accomplished.

The necessary modification of the law might be very simple. Let it be allowed for two physicians to give an order which should give legal power for three or four days to the authorities of institutions to restrain lunatics until time was afforded for the same physicians to make the necessary affidavits, and the desired end would be reached. The requirements of our Pennsylvania statutes are, however, very foolish. The doctor who would falsely sign a certificate of insanity would make affidavit to the same. It would save expense and trouble if only the simple signatures of the physicians were required, and would afford just as much protection against the incarceration of the sane.

THE number of medical students in Philadelphia this year is about as large as in previous years. The inauguration of the preliminary examination has had a very perceptible effect upon the first-year medical class at the University, probably frightening off about twenty per cent. of the men. It has, on the other hand, attracted some who would not otherwise have presented themselves. The character of the University class is shown by the number of Masters and Bachelors of Arts and Sciences, these constituting over thirty per cent. of the class. The total class of the University is something over three hundred and fifty men. A curious feature is the large number of second- and third-year men: thus, there are more second-year men than there were first-year men offering themselves for examination last spring, the gains from other institutions more than compensating the rejections of the spring examinations, losses from sickness, etc., etc. The Jefferson class is stated to be larger than last year, numbering in all about five hundred and fifty matriculates. The class of the Women's Medical College is also larger than last year.

LEADING ARTICLES.

WHAT CAN MINNESOTA DO FOR CONSUMPTIVES?

THE antiquarian who shall examine our climatological literature some centuries hence, if he be an inductive philosopher and acquainted with Lucan, will probably take out his pencil and record, as his conclusion, *Jupiter est quodcumque vides, et quocumque moveris*; for, whether Cowes, or Mentone, or Cairo, in the Old World, or St. Augustine, or St. Paul, or Denver, in the New, be the theme, good and sufficient reasons will be found to be adduced in each instance to establish the proposition that each particular spot is the world's sanitarium, and that it possesses certain undeniable advantages over its rivals.

The unfortunate practice of extravagant

laudation goes often hand in hand with failure to discriminate not only between different cases of the same malady, but even between different diseases; and so the fact that a given locality has acquired a reputation as a health-resort is regarded as a valid reason for recommending a trial of its virtues to those whose ailments have failed to yield to other treatment, with but little regard as to what may be their nature. And thus a resort possessed of material advantages for cases judiciously selected falls undeservedly into disrepute because it does not prove to be the grand catholicon for human ills.

In common with other sanatoria, Minnesota has suffered from this system of what may be termed miscellaneous recommendation; and the following statements are offered in the hope that the presentation of a few well-ascertained facts, as to what may be reasonably expected from its climate in cases of phthisis and what may not, will be of some assistance in enabling professional men to form an intelligent opinion when a visit to that State is contemplated for the relief of consumption.

Those who are familiar with the climate of Minnesota will pardon the unavoidable repetition of statements which have been already frequently made.

The elevation of Minnesota above tide-water ranges from eight hundred to one thousand feet. Its soil is composed almost entirely of drift deposits of three varieties, —blue clay, stratified clay, and gravel and sand; and these are covered to the depth of one or two feet by a rich silicious loam. The thermometric record for the last four years is as follows, the figures in all the tables indicating the annual mean:

	Maximum.	Minimum.	Difference.
1879 . .	71.7°	14.2°	57.5°
1878 . .	71.8°	23.7°	48.1°
1877 . .	69.9°	20.4°	49.5°
1876 . .	68.5°	14.5°	54.0°

The following table represents the barometrical observations for the same period:

	Highest.	Lowest.	Difference.
1879 . .	30.437	29.397	1.041
1878 . .	30.315	29.353	0.962
1877 . .	30.372	29.444	0.928
1876 . .	30.444	29.376	1.068

The mean relative humidity for 1879 was 65.3; for 1878, 67.7.

The amount of rain and melted snow is shown in the next table in inches:

1879	.	.	.	.	32.39
1878	.	.	.	.	22.78
1877	.	.	.	.	28.81
1876	.	.	.	.	23.67

The prevailing winds in summer are from the southeast; they are, however, more variable at this season than in the autumn or winter, when north and north-west winds predominate. The latter are dry in Minnesota, although cold and damp in the more eastern States, because of the different conditions under which they reach the two sections,—in the one case coming over the great lakes and Hudson's Bay, and in the other over a surface of land equal in area to the United States east of the Mississippi.

The persistent northeast storms of the Eastern States are infrequent in Minnesota. During 1875 the wind blew from that quarter on but ten days, in 1874 on twelve, and in 1873 on sixteen, and in no instance during more than two consecutive days.

The principal conditions, then, which have to do with climate are as follows: considerable elevation, a soil admitting of rapid absorption, low mean temperature, somewhat low barometric pressure, and winds which, especially upon the exposed prairies, attain a high rate of speed, but bring with them very little moisture,—in other words, a stimulating climate; and, speaking in general terms, under such circumstances we should expect to find that pathological processes of which an active hyperæmia and a tendency to rapid extension are distinguishing features will fail to be arrested and might even be aggravated. On the other hand, it will be reasonable to look for improvement in those cases in which the progress of the disease is slow, and indurated walls are opposed as a more or less effectual barrier between the diseased portions of lung and the unaffected pulmonary tissue. The stimulating effect of the climate, prejudicial in the one case, is helpful in the other.

As the object of this article is not to offer hypotheses, but simply to record facts, the *rational* of the effect of low temperature and of a climate such as is under consideration will not be dwelt upon. The known resultants are a greater demand for oxygen by the various tissues, a consequent increased activity of the respiratory centres and more complete expansion of the lungs, with quickened appetite and im-

proved nutrition. The facts observed during upwards of thirty years in Minnesota are such as to justify these conclusions. To speak broadly, the experience of physicians indicates that patients to whom the conditions in question are most suitable are those in the incipient and, if possible, in the pretubercular stage of consumption. Next to these, as likely to be benefited, is the class to which reference has been made, in whom the form of the disease is essentially chronic; nor is hæmoptysis in either class a contra-indication to a trial of the climate. It seems almost superfluous to say that in the case of the latter as well as of the former class the earlier relief be sought the better; but even when recovery is out of the question, instances are numerous of persons who have come to Minnesota with an expectation of life amounting at most to a few weeks, but who have acquired a reasonable degree of vigor, and have been in the active discharge of professional, official, or mercantile duties for periods varying from five years to ten, and even longer; who are not well, and who will eventually yield to the disease fastened upon them, but whose lives have been greatly prolonged, and the sum of whose comfort and usefulness has been greatly increased.

Dr. Lincoln, of Wabasha, Minn., says, in writing of the State as a health-resort, "I would not have an atmosphere too dry nor too damp. I would have the temperature variable, so as to induce a necessity and inclination to exercise, that digestion and nutrition of all the tissues may be promoted. I would not place myself at an altitude where I must breathe thirty times a minute to inhale as much oxygen as I ought to get in a respiration of twenty times a minute. I would look for a country where I could remain in the open air a part of every day. I would live in a house where an equal temperature could be maintained, and where good ventilation was active night and day. I do not believe it best for a patient with advanced phthisis to leave a comfortable house, be that where it may; but for the advantage of persons in the incipient stage of the disease the State of Minnesota has, in a great degree, the favorable conditions herein mentioned."

As to the length of time requisite for the relief of consumption, it may be said that in many cases permanent residence is

a *sine qua non*, while in almost every instance only a prolonged stay can be relied upon for recovery or even for decided improvement. It has happened many times that apparent restoration has begotten a false sense of security, and return to a former home has rekindled the disease and led to a speedily fatal issue.

It is better, for obvious reasons, that invalids should come to Minnesota in the summer or early autumn rather than late in the latter season or in the winter,—a precaution often disregarded. As regards persons who have derived or who may derive the minimum of benefit from a trial of the climate, a word should be said.

It has been remarked that phthisis of an acute type is unlikely to be benefited, and that in other cases the prospect of relief is in direct proportion to the period at which relief is sought. In addition to this, the climate of Minnesota tends to the development of catarrhal affections of the respiratory tract, and catarrhal phthisis, especially when the bronchial apparatus is extensively implicated, must be placed in the category of varieties least susceptible of improvement.

No distinction is made in these remarks between pneumonic and tubercular phthisis. While the prospect of ultimate recovery is, of course, greater in the former, the latter may at least be benefited, subject to the conditions which have been mentioned.

The following statistics are offered that comparison may be made with corresponding returns from other localities. It should be borne in mind that a considerable number of persons come to Minnesota with the disease so fully developed that relief is impossible, and that not a few of those whose death is attributed to consumption are in reality victims of senile bronchitis. The percentage of deaths from phthisis in Minnesota was, in

1879	9.9
1878	10.5
1877	11.1
1876	10.5

GLYCEROLE OF THYMOL.—The formula is—

R Thymol, gr. xx;

Glycerinæ,

Alcoholis, aa fʒi;

Aquæ destillat. ad Oj.—M.

Useful in pityriasis, and, when diluted, as an effective antiseptic mouth-wash.

CORRESPONDENCE.

LONDON LETTER.

THE present object of interest here is the opening of the medical schools and the commencement of another winter session, fraught with the hopes of so many first-year's men. How many of these ardent youths will fall out of the ranks before they take a qualification, how many will retire from the profession after having worn harness for some years, it is not possible to say. But the gift of prophecy would, it is to be feared, tell of a very heavy percentage of both. How many will fall victims to their warfare with disease in all its forms, also may not be told; but that a distinct number will so perish is certain. The profession furnishes non-combatant officers to the services; but, non-combatant or not, a considerable proportion contrive somehow to get killed, instead of dying in their beds,—as surely a non-combatant officer, if only for the sake of example, ought to do. Quite certain it is, too, that if a surgeon is fighting instead of minding his own business proper, he deserves to be—well, no, not killed, but wounded; an unskilled combatant will probably do the fighting just as well; but if the trained surgeon gets *hors de combat* it is not easy to supply his place.

Of course, with the opening of the session came the various addresses, when each lecturer poured out a sample of what he had got within him; and, it is needless to say, the samples varied. Following the lead of Henry Power and Michael Foster, Prof. Burdon Sanderson shook his fist defiantly at the time the student has to spend in acquiring information which he is not expected even to retain, as a rule, after he has left the examination-table. He earnestly impressed on his hearers the consideration that "the one thing needful" in medical education was neither the acquirement of scientific knowledge nor the preparation for examinations, but preparation for the responsibilities of practice; and with that view he gave an account of the system of instruction carried on in University College Hospital, in which the student was led, by successive practical lessons at the bedside, to observe and discriminate the signs of disease, to form a conclusion from them as to its nature, and, finally, to act for himself for the relief of the sufferer. "Every student," he said, "finds that from the moment that, having completed his studies in human anatomy and physiology, he becomes engaged in the wards of the hospital, he has very little time for other kinds of work, and that residue of time is subjected to still further diminution by the yearly increasing requirements of the examining boards, so that the final remainder of leisure available for real work outside the hospital is extremely small. The precious years which immediately precede a man's

entry into professional duty are far too valuable to be wasted in learning anything that he does not intend to retain." Yes, it is high time protest after protest should be issued against the "lumber-portion" of medical study,—the impedimenta of the student's onward march. One of the professor's most promising present pupils is, to my personal knowledge, getting up early in the mornings, when his memory is fresh, to—what?—to learn the ligaments! Of course it is very well for a practitioner to know the ligaments as an accomplishment, but not as a serious preparation for his conflict with disease, occupying a very distinct portion of those "precious years." Granting that it is pleasant to see a practitioner so well informed that he even remembers about his ligaments, still this knowledge is scarcely of that tremendous importance that it is needful to know it so thoroughly as to be able to carry it about with him. It may be questioned how far accurate remembrance of the ligaments will be of any avail to a man even when treating a sprain. And yet any other opportunity for making such knowledge useful can rarely come a medical man's way,—unless it be giving evidence at a coroner's inquest in a case of broken neck, when he might impress a jury with his learning by talking of the atlo-axoid ligaments; and then perhaps he would achieve the feat just as well by looking up the matter in Gray—just as I have done—as if he had carried the name in his head, ousting more useful information. However, it is good to see men who are not in practice, like Sanderson and Foster, insisting so firmly that men shall be educated to be of use to their fellow-beings in practice, whatever else they may not be.

Dr. Waters, in his address to the Liverpool School, pursued the topic thus: "The great object for which you come here is to learn how to recognize and treat disease,—to learn how to be of practical use in the alleviation of human suffering. The public estimate our services, and will honor and reward us, in proportion as we are able to treat successfully their ailments. They do not stop to inquire how far we are skilled anatomists or able physiologists,—how far we are good chemists or botanists,—but how far we can, by the application of remedial measures, cure their diseases; and therefore, although the sciences connected with medicine are of the highest importance, a knowledge of them alone will not make a physician or a surgeon." It is positively refreshing to find that once more medical teachers are recognizing the fact that the public would like to have something for their money; that what they want is a man who can benefit them in return for the money they pay,—in fact, "value received." This is a healthy reaction against the doctrine recently taught insidiously, if not formally promulgated, that it was first of all requisite that a medical man should be highly educated, fa-

miliar with the collateral studies of medicine, well informed in society, learned in the causation of disease, skilled in its detection, prophetic almost in his diagnosis, but impotent, or nearly so, as a therapist,—professing not to believe in drugs. The impertinence of this last was only equalled by the dishonesty underlying it. If the man who "disbelieves" in drugs arrived at his conclusion after long, patient, unbiassed trial of them, then his conclusions would be entitled to every respect. But when the assertion comes from lips which speak from the stand-point of the dead-house, from the physical examination in the hospital wards, when the tired teacher almost forgot to prescribe, then it carries no weight of conviction with it: it is undisguised impertinence which ought to be birched. When a patient comes to one in trusting confidence, placing health and life in our hands, and with them the prospects of his wife and children, surely in return a medical man with a spark of manly feeling or true self-respect will meet that trust as a man ought to do,—viz., by the fulness of knowledge. Ignorance which can be removed by pains is nearly as execrable and morally detestable as malice. To let a patient die for the want of knowledge which can be acquired if the effort were made properly, is nearly as wicked as to kill him purposely. To slay a patient by ordering him chloral when the respiration is failing,—no uncommon event, I regret to say,—because the prescriber is ignorant of the effects of chloral upon the respiratory centres, differs little from wilful murder. It is a pity that some of our teachers do not look at the matter of therapeutics from the stand-point of the day of judgment. I venture to think that, if they did, a number would reconsider their therapeutic belief.

Dr. H. Donkin, at Westminster Hospital, has looked at the subject in this light. He says of the doctor, "He, more than any, has to exercise, in the complexity of his relations, that fine taste, the heritage of the ages, which enables him to distinguish between right and wrong, and has constantly, while regarding his own necessary self-interest, to keep in view his bounden duty to his fellow-men. The doctor alone is paid for doing what all right-minded men would freely do for their fellows,—all that is in their power." Certainly; but do all of them do "all in their power," when they allow themselves to be grossly ignorant of the advances in therapeutics? Yes, and he puts forward ably a view too little entertained,—namely, the desirability of being personally familiar with some of the work done in the past; of knowing how the investigator worked, and registered his work, and put it on record; the bald facts of which find their way into text-books and are part of the permanent stock knowledge of the profession. He says, "Day after day utters new books, though not always new knowledge; and the work of those who have gone is either for-

gotten or reproduced, not always even then improved. We should perchance be spared some of the immoderate plague of crude, superfluous medical writing, were men more given to the study even of ancient works, and of those of the great departed moderns in their original form. And not only would literature be the gainer, but sound clinical knowledge would more abundantly flourish, were the original writings of such men as Cullen, and of Bright in later days, and of some, too, whom we are proud to have among us now, to occupy more of our student time. Practical medicine would scarcely be the loser were a colder welcome given to the appearance of compendiums and bald abstracts of others' works, and a less price offered for the committal to memory of lifeless catalogues of facts,—a labor through which it seems before all things necessary that he who would be highly examined must pass." The study of the work, well known and generally recognized as valuable, of some past writer in his own words would be a good addition to the present course of study, as regards the education and edification of the medical student's mind and his preparation to observe and think for himself, which all men ought to do, and a few do. He goes on to another subject: "It is the ignorance or the forgetfulness of the fact that many very palpable maladies can be traced no farther back in the chain of causation than to a link distinctly mental—however subtly, as we may allow, some physical change may underlie it—that leads so many of us, at the present day, to commit the gravest errors of opinion and practice. Leaving out of sight some diseases well known and trenchantly marked out by clear-cut symptoms, which can be referred with the greatest probability to an origin other than confessedly physical, there are many less definite but troublous ailments which defy all treatment, while their emotional cause remains undiscovered by the ignorance or indolent incredulity of the doctor. On the one hand, such maladies are derided as shams, or, on the other, are put down, to the infinite hurt of the patient, to some condition existing only in the mind of the physician, to cover his escape from the unpleasant necessity of confessing his ignorance. I cannot here expand this subject; but I have known cases of patients who suffered from wasting and many symptoms of failing health sent airily away, after a short interview with a doctor, to a distant country with the false brand of 'threatening consumption' upon them, to the great damage of their lives' work and prospects, when their every ailment was due to a mental trouble, which a little insight and sympathy would have induced them to reveal, and which, by such revelation, might have been largely, if not wholly, dispelled." Here is another charge brought against sundry members of the pro-

fession,—viz., that they possess not the requisite tact and knowledge to find out what is the matter with their patients, and send away these patients to foreign lands, to the detriment of all their worldly interests, when really they ought to send them away telling them to consult some one who may possess more insight. No; it is easier to send them away abroad and trust to time. If the patient gets well, then the credit of a cure is assumed; if the patient becomes really ill, then the opinion is confirmed. It is a curious suggestive fact that of the physicians who have the strongest partiality for sending their patients abroad, a large portion do not command the intellectual respect of their fellow-men in the profession, or are avowedly sceptical as to the efficacy of drugs. It is commonly enough said, "Oh, yes, he sends his patients abroad when either he does not know what is the matter with them or does not know what to do for them." And it is to be feared that this is not always mere scandal. These refuges of "ignorance or indolent credulity" are getting exposed one after another, and do not have the effect of increasing the confidence of the public in the profession.

In connection with this subject lies the cognate question of the morality, or rather the want of it, displayed by some of the resident medical men in health-resorts. Rather more than a year ago I saw the daughter of a doctor who had some consolidation of the apex of one lung, for which she had been sent to a Swiss valley for the preceding winter. She had enjoyed the foreign stay, for her mother, the younger children of the family, and the governess had gone with her. But this was a most serious expense. I asked, Had she had any medical treatment? The answer was, "None." So I prescribed a pill of arsenic and iron to be taken steadily during the ensuing winter, in addition to the residence abroad. She returned, and the doctor then, without any consultation with me whatever, stopped the pills. The girl came back in spring so ill that her mother at once put her back on the pills, under which treatment she has made the most satisfactory progress. Now, this means either culpable ignorance and presumption, or unspeakable villany. Words are unequal to express my detestation of such grasping greed, such low, shallow cunning. If this is to be the way that health-resorts have to be manipulated and engineered, then the practices of a Wall Street ring are respectable by comparison. But of course such transparent rascality defeats its own ends. This winter that patient is going to remain in England and take the pills, in preference to another experience of the climate, the still air, and the many hours of cloudless sky of that famous health-resort.

Dr. Donkin goes on to say, "The quack is not yet gone from among us; nay, rather, he

lives and he flourishes, protean in form and chameleon in hue. These are they who turn aside from the path of that duty which their profession, in its true and highest meaning, involves, at the lure of those rewards which fall alike to the unjust and the just, if indeed they come not to the first of these in the richest profusion. Trading, and only trading, in the name of science and humanity, they desecrate the one and make sport of the other for their own ignoble ends, using the screen of distorted knowledge to hide their base but too successful endeavors to build a fortune out of the ignorance and the superstition of the public whom they rob." In his concluding sentence he says, "If I have seemed to over-wantonly expose some plague-spots in our midst, or speak too strongly of our sins, I can say no more in extenuation than that I have felt as strongly."

Perhaps it will be a matter for surprise for some readers to learn that this lecture has appeared *in extenso* in the columns of the *British Medical Journal*; yet this is the fact. That periodical is waking up a bit from its lethargy of self-satisfaction. Listen. "How weary, flat, stale, and unprofitable is an ordinary meeting of a Branch Association! How tedious the orator! how listless the audience! how dull the debaters! No wonder the attendance is small; that Smith is too busy to be present, and that Brown instructs his wife to send an urgent message for him when the pipes and coffee are coming to an end." Such is the tenor of a letter on "The General Practitioner" in the number for October 16. It goes on, "The time has come for the settlement of the question whether the family doctor is to be a physician or a tradesman with a medical qualification. Can he dare to rest his claims for daily bread and social recognition on his knowledge and skill in medicine, or must he still be a compounder of drugs and an apt manipulator of bottles and sealing-wax?" Perhaps those very men whom the editor led off into indignation at some remarks of mine a year ago will read this letter and give it their earnest attention. Possibly an improvement is feasible (however desirable it may be is not the question) in some of those elements of the profession who degrade it in public estimation. The present position of the struggle at Guy's Hospital is not likely to elevate us in the eyes of the public, who are watching it with eager interest.

J. MILNER FOTHERGILL.

TO PRESERVE THE STRENGTH OF MAGENDIE'S SOLUTION.—The following is the formula of Dr. H. M. Keyes, he having called attention to its successful employment in Roosevelt Hospital some years ago:

R Morph. sulph., gr. cclvj;
Acid. salicylic., gr. viij;
Aq. destil., f3xvj.

PROCEEDINGS OF SOCIETIES.

PHILADELPHIA ACADEMY OF SURGERY.

MEETING OF JUNE 7, 1880.

The President, DR. S. D. GROSS, in the Chair.

COMPLETE OUTWARD LUXATION OF THE BONES OF THE FOREARM AT THE ELBOW.

DR. J. EWING MEARS reported a case recently under his care at St. Mary's Hospital. The man was working near some machinery, when a revolving timber struck him on the inside of the right arm, just below the elbow. A complete dislocation of the bones of the forearm occurred. The upper ends of the radius and ulna lay above the outer condyle of the humerus; the arm was flexed at a right angle, and the palm of the hand turned towards the left side, with the fingers partly flexed. There was pain in the fingers and numbness in the distribution of the median nerve. The lower end of the humerus was readily felt beneath the tissues, which were firmly stretched over it, and there was apparently laceration of the tendon of origin of the muscles, arising from the inner condyle. No fracture was discovered, and but little motion was possible.

Reduction was effected by extension, counter-extension, and manipulation, and an angular splint was employed for five days. Subsequently passive motion was instituted and the angle of the splint varied. The patient has now good use of the limb, with but little stiffness.

Complete outward dislocation of the elbow is of rare occurrence. The mechanism of the injury in this case is easily understood, and was evidently due to rotatory and opposing force. The man, at the time of injury, was holding and drawing downwards upon a beam over his head, and had the elbow flexed.

Dr. S. W. Gross stated that he had reduced a backward dislocation of the head of the radius of nine weeks' duration. The patient, who was a farmer 28 years of age, and had fallen from a wagon, came to his clinic with the arm semiflexed, fixed, and pronated, and the head of the bone could be distinctly felt in its new position on the posterior surface of the external condyle of the humerus. Under ether, ordinary manipulations having failed, after the periarticular adhesions had been broken up by forced flexion and extension the dislocation was reduced in a few minutes with the aid of the pulleys.

Dr. O. H. Allis was unable to reduce the dislocation in an instance of this kind, which came under his notice eight weeks after the receipt of injury. The man has permanent deformity of the elbow, and the outer condyle is masked by the displaced bones of the forearm.

Dr. S. W. Gross had reduced a posterior luxation five weeks after the injury.

Dr. Mears was of the opinion that the difficulty in reducing old luxations of the elbow was dependent upon the important part played by the muscles in relation with the joint after plastic exudation had occurred. The ligamentous structures about the joint are rather simple, and yet neglected dislocations in this region are seldom reduced.

Dr. De F. Willard read a paper on a "Splint for Hip-Injuries, including Hip-Joint Disease and Fracture of the Femoral Neck" (see p. 71).

Dr. J. H. Packard spoke of a splint, which had a sort of saddle under the tuberosity of the ischium, that he had employed in coxalgia, and which he had described at a meeting of the College of Physicians about fifteen years ago.

RADICAL TREATMENT OF HYDROCELE BY INJECTION OF CARBOLIC ACID.

Dr. R. J. Levis stated that in 1872 he had begun to treat hydrocele with carbolic acid injections, because a more plastic grade of inflammation than that obtained by ordinary injections was required, and because incision gave rise to cure only through suppuration. His method is to withdraw the fluid by an ordinary trocar, and then to introduce the long nozzle of a syringe through the trocar into the vaginal sac. By this means the carbolic acid is thrown into the cavity, and there is no danger of its being injected into the cellular tissue of the scrotum. The carbolic acid crystals are merely liquefied by slight heat, or by a few drops of glycerin. To keep the injecting fluid ready for use at all states of temperature, about ten per cent. of glycerin or water may be added to the crystals. In summer the crystals become liquid without the addition of any solvent. The amount of carbolic acid which Dr. Levis injects is one-half a fluidrachm, and this is allowed to remain in the vaginal tunic. The operation is almost, if not entirely, painless, because of the local anæsthetic action of carbolic acid. The patients sometimes exclaim at the moment of introduction, but have a sensation of numbness rather than of pain. The pain, when tincture of iodine is employed, is much greater. Care should be observed to allow no acid to flow upon the external surface of the scrotum, for pain and inflammation will follow such contact. After the injection the patient is permitted to walk about the house until the weight and slight soreness of the scrotum cause him to lie upon a bed or lounge. The results after this method of treatment are excellent, for undue inflammation does not occur, there is no marked pain, and a radical cure generally occurs. Dr. Levis has never seen suppuration or sloughing follow this manner of dealing with hydrocele.

Dr. J. H. Brinton had seen quite severe

inflammation follow the carbolic acid injection, and Dr. S. W. Gross had failed to cure a case in which he had employed it.

The President introduced Dr. F. H. Anders, of the Sandwich Islands, who gave the Academy an account of the leprosy as occurring in that country.

JOHN B. ROBERTS,
Recorder.

REVIEWS AND BOOK NOTICES.

THE MANAGEMENT OF CHILDREN IN SICKNESS AND IN HEALTH. A Book for Mothers. By AMIE M. HALE, M.D. Philadelphia, Presley Blakiston, 1880.

This little book hits the desired medium between too much and too little advice. It is very clearly and pleasantly written, and from its pages one could easily cull a hundred maxims, besides the "aphorisms" which the author has appended. The mother, guided by this book and by a fair amount of common sense, will less often send for the physician unnecessarily, and also less often omit to send when there is real need. While here and there a fault-finder might object to little things, it would be hard to find or to write a better book of the kind. E. W. W.

TRACHEOTOMY IN LARYNGEAL DIPHTHERIA (MEMBRANOUS CROUP), WITH ESPECIAL REFERENCE TO AFTER-TREATMENT; to which are added a few General Remarks on Diphtheria and its Earlier Treatment. By ROBERT WILLIAM PARKER, Assistant-Surgeon to the East London Hospital for Children, late Resident Medical Officer, Hospital for Sick Children, Great Ormond Street. London, David Bogue, 1880. 8vo, pp. 82. Illustrated.

This commendable essay, republished, with additions, from the most recent volume of the "Transactions of the Royal Medical and Chirurgical Society of London," is worthy the permanent form in which it is now presented. It is chiefly a personal expression of opinion, based upon quite a limited number (twenty-one) of cases of tracheotomy detailed in the volume, sixteen of which operations were performed by the author. Twelve recoveries followed these twenty-one operations,—a highly-flattering result, as far as it goes. Much stress is justly laid on the details of the treatment after operation,—a subject so thoroughly discussed by Sanné that we cannot avoid surprise at missing all allusion to that observer in the text.

Mr. Parker believes in the identity of croup with diphtheria. He recommends a special shape of canula in preference to those in general use; he seems to have more confidence in local applications to the diseased surfaces than have most practitioners, and is

a great advocate for the use of steam by the croup-kettle after the operation. He appears to be unaware of the use of the fumes of slacking lime.

While we believe that greater experience will lead Mr. Parker to modify many of his opinions and methods of expressing them, we commend his monograph to the attention of those likely to be called upon to perform the operation in question, as the details of the after-treatment—a most important element of success—are clearly discussed and appropriately illustrated. J. S. C.

HYGIENE AND EDUCATION OF INFANTS; OR, HOW TO TAKE CARE OF BABIES. By the SOCIÉTÉ FRANÇAISE DE HYGIÈNE, Paris. Cincinnati, Robert Clark & Co., 1880.

Ten prize memoirs termed "remarkable," and containing "valuable material," have been skimmed of their cream, which forms the contents of the "Hygiene and Education of Infants." Though somewhat peculiar in phraseology, and reading a little as did the "Manual for Mothers" of the olden time, a careful inspection will discover very few errors. What few corrections were imperative for the differences of our climate and customs the translator has briefly indicated in foot-notes.

The statistics of infant mortality in France for bottle-fed infants (p. 12) looked so bad that the translator, in a spasm of patriotism, has added a foot-note to say that "Fortunately these facts are not applicable to any portion of the United States." The truth is, however, that they are exceedingly applicable, hand-feeding in our large cities and in many smaller manufacturing towns exhibiting the same unfortunate mortality. The translator was obliged to render into English the honest words of one who, forgetting his national vanity, said, "To tolerate bottle-feeding at Paris is to absolve infanticide."

We come across many excellent hints in reading, as on page 29: "When on several successive days the baby takes each time all the contents of the bottle to the last drop, increase the proportion of milk and diminish the water;" and (p. 49), "An infant should not be weaned while it has an odd number of teeth." Beds of sea-moss, fern-leaves, or fine heather, easily renewed, are advised, and light should not be excluded from the room, either in sleeping or waking hours, from the infant's earliest days.

In short, it is a cheap, safe, and reliable little book to place in the hands of a mother,—one that neither aims at making her a family physician nor confuses her with technical language. E. W. W.

CONDITION OF THE PARIS SEWERS.—Some five men who went into a Paris sewer for the purpose of cleaning it were killed instantaneously by noxious gases.

GLEANINGS FROM EXCHANGES.

OPHTHALMIA NEONATORUM — PURULENT CONJUNCTIVITIS.—Dr. J. R. Wolfe, in a lecture on this subject (*Med. Times and Gas.*, vol. ii., 1880, p. 259), says he has found that the larger number of the incurable blind owe their misfortune to the purulent ophthalmia of infancy. He urges upon practitioners the importance of abandoning the old routine treatment for this difficulty, and suggests the following measures. The diagnosis of the affection is as follows. On the third or fourth day after birth the baby's eyelashes are found stuck together with crusts forming at the borders, which are red. Next day the lids are more swollen, and the conjunctival sac filled with transparent, yellowish-colored serum and mucus. Within a week all the symptoms become intensified, and there is a copious discharge of pus, which runs over the cheeks. The eyelids are swollen so that they can only with difficulty be opened, and the cornea is found hidden and retracted in the purulent discharge. The cause of the trouble is that the child, in its passage from the uterus, has had its eyes inoculated with gonorrhœal or, possibly, leucorrhœal discharge from its mother's genital organs. The suppuration goes on in the eye until the reproduction of epithelium cannot keep pace any longer with the pus-formation; then the covering becomes imperfect; the conjunctiva and subconjunctival tissues are attacked at the limbus; ulceration or abscess of the cornea ensues, ending in perforation; the eyeball bursts; the lens is evacuated; and the ball shrinks. Should the eye escape disorganization in some of the milder attacks, opacity of the cornea is left behind, causing strabismus, amblyopia, nystagmus, or opacity of the lens-capsule (capsular cataract).

If the old-fashioned, deleterious treatment is followed, which consists in dropping a solution of argenti nitrat. (gr. x ad $\frac{3}{4}$) into the eye, the effect is either that the pus washes away the solution, rendering it innocuous (for it never touches the diseased surface), or it irritates the cornea, denuding it of its protective epithelium; the cornea ulcerates, or an abscess is formed, leading to the disorganization just referred to. Meanwhile, the eyelids swell so that the ball cannot be examined, and when the swelling goes down the eye is found to be gone.

Dr. Wolfe's procedure is as follows:

1. When seen in the first stage, before the purulent discharge has set in, the patient's head is placed on a towel and secured on the doctor's knees. The lids are then everted, singly or together, and, after cleaning them with dry lint, he touches the conjunctival surface with lint dipped in this solution:

R Boracic, gr. x;
Aq. rosæ, f $\frac{3}{4}$;
Aq. ad f $\frac{3}{4}$ vj.—M.

One dessertspoonful in two ounces of warm water.

He then puts a few drops of the solution of atropin upon the conjunctival surface:

℞ Atropiæ sulph., gr. j;

Aquæ, f3ij;

Glycerinæ, f3ss.—M.

The application is repeated three times a day. The atropin has an antiphlogistic effect upon the inflamed surface, and also, by dilating the pupil, relieves the tension of the eyeball. Dr. Wolfe never uses cold applications, nor does he employ ointments to keep the lashes from sticking together; washing with warm water is better. Dry lint is then applied to the lids and secured by an immovable bandage. The case is watched carefully.

2. When the case is found to be unmistakably one of purulent ophthalmia, the lids are everted one after another, dried as before; a few drops of the solution of atropin dropped in, the surfaces touched with a stick of argenti nit. two parts, potass. nit. one part, and a few more drops of atropin put upon the cauterized surface. When the conjunctival surface is bleeding (a favorable symptom), it is dried with lint and the cauterization repeated. The whole conjunctiva is touched, and also the *cul-de-sac*. He bathes it with lint and warm water, and covers the eyes with dry lint and a bandage. If one eye only is affected, the other is closed with court-plaster and covered with lint.

3. When called to see a case in the stage of advanced suppuration, say of three or four weeks' standing, the eyelids must be opened with great care, as the eyeball may be ruptured. If the cornea is found intact, the atropin and nitrate of silver pencil are to be used.

4. When an ulcer of the cornea or an abscess has already formed, it is the more urgent to use the nitrate as the only weapon to combat the disease. When the cornea is not actually ruptured, Dr. Wolfe generally manages to arrest the progress of the disease, and save it even if it is found in the process of softening or with an abscess. Such cases should be seen daily. In public hospitals or dispensaries Sundays must not be excepted, for one day's neglect may prove disastrous.

LIGATION OF THE SUBCLAVIAN ARTERY—RECOVERY.—Dr. John A. McKinnon (*Virginia Medical Monthly*, October, 1880, p. 524) operated in a case of traumatic aneurism following a gunshot wound, ligating the subclavian artery external to the scalenus anticus. The patient did well until the tenth day, when a profuse secondary hemorrhage took place. Anticipating this, Dr. McKinnon had prepared a bag of shot to be used as a compress should this accident occur.

The bag was made after the form and shape of a United States mail-bag, making the bottom very much larger in proportion to its

length; the bag was large enough to hold the shot loosely. He used quilt-lining in its construction, for reasons afterwards to be explained. In the bag he put two and a half pounds of shot.

As soon as possible after reaching his patient, who was nearly dead from loss of blood, the wound was opened, clots removed; a free arterial flow was seen: a strip of adhesive plaster was so applied as to approximate the edges of the wound; and the bag of shot, dipped in the carbolized water, was placed over the incised and pistol-shot wound,—the aneurism pulsation being feebly felt. The hemorrhage was at once arrested. After twenty-four hours the patient complained so much of the weight that Dr. McKinnon emptied out about one-half of the shot from the bag and then replaced it. This remained on for forty-eight hours, when it was permanently removed.

The wound at once took on healthy action; the suppuration was very much diminished in quantity, and nothing more was done, except that the absorbent cotton was kept wet with carbolized oil, consisting of two drachms of carbolic acid to six ounces of the best olive oil.

The only subsequent trouble was the removal of the ligature, which remained until May 14.

Dr. McKinnon devised an elastic bandage, attached to the fore end of the ligature, which was, after as much tension as could be borne, secured with adhesive plaster over the shoulder. This, after about a week, caused the ligature to cut through the artery and become detached. Nourishment and opiates were assiduously attended to. By the end of two months the patient's convalescence was complete, except a partial paralysis of the arm, which was gradually improving.

FRACTURE OF THE AXIS.—"A Medical Student" (*North Carolina Med. Jour.*, September, 1880, p. 159) gives an account of this fracture in a person executed by hanging. He had a fall of nearly eight feet, and was pronounced dead by the attending physicians about fifteen minutes after the trap was sprung. In the death-struggle nothing unusual was noticed. There were a few convulsive strokes of the limbs and the customary drawing up of the legs; soon after, his heart stopped pulsating, and death had cast her dark veil over his earthly existence. On examining the rope, it was found that the knot had slipped from under the ear and was resting above the atlas, necessarily throwing the head forward and the weight of the body on the axis. In hanging, the rope is supposed to be properly adjusted with the knot under the ear, but it often slips to the back or front of the neck, and the condemned man, ten chances to one, dies from asphyxia.

An oblique line of ecchymosis around the neck was distinctly seen, much darker than

the surrounding skin. The muscles of the neck were carefully dissected away and the atlas and axis exposed, showing the axis in close contact with the spinal cord. On examining the dura mater, pia mater, and arachnoid membranes of the cord, the two latter appeared much congested, some of their vessels having given way, thus allowing an effusion of blood into their cavity. The pressure of the fractured bone had partly broken down the anterior columns of the cord at the point of contact. The detached axis exhibited fracture on both sides at the junction of the body with the pedicles running across the transverse processes, parallel with the posterior portion of the body. The ligaments of the odontoid attachment and the odontoid process were uninjured. Fracture of the odontoid process in hanging is by no means common, but one at the above-named place is yet more rare.

The writer also mentions the case of a milkman who, while riding under a gateway, accidentally struck his head on the cross-bar over a gate. He apparently experienced no pain, but drove on until a movement of his head brought the odontoid process to bear on the spinal cord, which caused him to fall lifeless.

RESULTS OF GALVANO-PUNCTURE IN ANEURISM OF THE AORTA.—At the meeting of the French Medical Association at Rheims (*Med. Times and Gaz.*, vol. ii., 1880, p. 275; from *Union Méd.*, August 21) Dr. Petit stated that he had collected 114 cases, in 69 of which amelioration had taken place; in 38 death had taken place without any notable amelioration; in 3 no result is given; in 4 this was doubtful. In 39 cases the patients survived less than a year, although greatly ameliorated; and 10 survived from one to two years, the remainder surviving from two to five years. Amelioration was produced in 24 cases after a single application, and continued from two to seventeen months. In the others from three to eleven or twelve applications have been required, owing to the short duration of the amelioration, these patients succumbing shortly after the last application. In intrathoracic aneurisms there were 30 successes to 7 failures, while among aneurisms which manifested themselves externally there were 36 successes to 31 failures. Amelioration was especially manifested with respect to the symptom of pain; and cessation of paroxysms of dyspnoea, return of appetite, sleep, etc., have also been observed. In 61 cases aggravation of symptoms is recorded; and this has been especially the case when the negative pole has been employed.

Professor Potain observed that it was an error to attribute to the production of coagulation the amelioration induced by electrolysis, and that it is a good thing that this is so, as embolism would be of frequent occurrence. Dr. Onimus also attaches little im-

portance to coagulation, believing that the current exerts a vital and molecular action, to which the amelioration is due. When a coagulum is found in the aneurism, it is a mistake to attribute it to the electrolysis, as it is also met with when this means is not employed. M. Ollier observed that no case of durable cure has been recorded, and he prefers treatment by milk-diet and the iodide of potassium. Dr. Heurot considered it as a valuable palliative, relieving distressing symptoms even in desperate cases. M. Petit replied that, while a cure has been obtained only in two or three cases, very prolonged amelioration has followed in a great number.

FETAL ENDOCARDITIS.—In the case of a pregnant girl of seventeen, under the care of Prof. Peter (*La France Méd.*; *Lancet*, vol. ii., 1880, p. 388), an active foetus could be felt in the uterus; but instead of the usual *tic-tac* sound of the foetal heart the first sound was replaced by a blowing murmur, almost immediately succeeded by a sharp sound like the normal second sound, and this was followed by a brief silence. The precise limitation of this sound to the area in which alone the sounds of the foetal heart were heard, and the absence of any uterine contraction which could cause compression of the umbilical cord, showed that the sound must be due to a lesion of one of the cardiac orifices.

On examination of the child, which died during the last period of labor, the organs were found healthy, except the heart, which was enormously hypertrophied and seemed alone to fill the thoracic cavity. It was nearly globular in form, the right half being much larger than the left. The valves on the left side of the heart and those of the pulmonary artery were healthy, but the tricuspid valve was the seat of a "plastic vegetative endocarditis," the free edge being thickened, covered with projections, and its upper surface being uneven. The chordæ tendinæ were shortened and thickened, maintaining the valves in contiguity to the walls of the ventricle, so that it was impossible for them to fulfil their normal function. The right ventricle was dilated and greatly hypertrophied. The lesson to be drawn from the case is that when foetal endocarditis has been diagnosed acceleration of the labor by all possible means is desirable to afford the child a better chance of life. The mother, it may be noted, had never suffered from rheumatism, and presented in her history nothing to which the condition of the foetus could be ascribed. Whether she had suffered from syphilis was not noted.

EASY EXPULSION OF BILIARY CALCULI.—Dr. R. Kennedy (*Lancet*, vol. ii., 1880, p. 456) recommends the use of olive oil in large doses for the purpose of expelling biliary calculi. He has used it in a variety of cases in the past year, and always with complete success. In every instance in which the calculi were proved or presumed to have been the cause

of periodic suffering, these bodies were promptly and painlessly expelled in larger or smaller numbers by the use of *large* doses of olive oil. In some instances, where the patients did not exhibit symptoms of such acute suffering as are more commonly witnessed, but where obstruction to proper flow of bile was evident, satisfactory results have been obtained. In one case, given by Dr. Kennedy, six ounces of oil were taken at bedtime, followed the next morning by a full dose of castor oil. The bowels were not moved until the following evening, when an enema was given, which brought away a large number of small stones. The dose was repeated on the two following nights, and no more trouble ensued from the calculi. The administration of olive oil at intervals of a few weeks or months does prevent the reformation of the concretions, but does not do away with the causes or the diathesis upon which their formation depends.

CAUSE AND TREATMENT OF BROMIDROSIS OF THE FEET.—Dr. Thin, in a paper on the cause of the bad odor sometimes associated with excessive sweating of the feet (*Brit. Med. Jour.*, vol. ii., 1880, p. 463), calls attention to the fact that this odor does not belong to the sweat itself, but is in the coverings of the feet. In a case experimented upon to verify this fact, which has been noted by Hebra, the hands of the patient, a young woman, which sweat profusely, were free from odor, while the feet gave out a disagreeable smell in moist weather, being quite inoffensive in dry, bracing weather. The soles of the shoes and stockings being subjected to the action of an antiseptic, the smell was entirely banished. It soon returned, however, and examination showed the stockings to be saturated with a secretion filled with bacteria. When, however, the stockings were immersed in a jar containing a saturated solution of boracic acid and dried, the smell disappeared. Taking this hint, these coverings were disinfected with the acid previously to wearing, with good result. To prevent the sodden, disagreeable smell of the shoe-soles due to this same cause, the patient was directed to get cork soles. Each pair of these, after having been worn a single day, were placed overnight in the boracic acid solution, and were the next day dried. On the third day they were again ready for use. The skin was also washed with the boracic acid solution, which hardened and refreshed it. The cure was very satisfactory.

OIL OF EUCALYPTUS.—Dr. Siegen (*Lancet*, vol. ii., 1880, p. 387; from *Deutsche Med. Wochens.*) has been using the oil of eucalyptus in antiseptic surgery. He prepares a solution of the oil by dissolving three grammes in fifteen grammes of alcohol, and diluting with one hundred and fifty grammes of water. In this solution he soaks ordinary gauze. This dressing is applied in the wet state, covered with the usual gutta-percha tissue, and the

whole kept in position by means of gauze bandages. Thus prepared, the eucalyptus gauze does not appear to irritate or produce eczema upon even sensitive skin, and is perfectly antiseptic.

In one case of a child with caseous glands of the neck, the instruments were dipped in a two-per-cent. solution of the oil, the surfaces were washed with the same, and the operation performed by scooping out the contents, draining, and applying a wet eucalyptus dressing as above described. Although the spray was not used in this case, the discharges which had penetrated the gauze were quite sweet upon the third day. The slight amount of pus remained odorless, and on the eighth day the cavities had contracted and healed. Cases of resection of joints, etc., are also reported by Dr. Siegen, where the eucalyptus oil worked very well.

TINNITUS AURIUM.—In a paper on the forms, causes, and treatment of tinnitus aurium, Dr. W. Douglas Hemming gives the following table, showing the classification of noises in the ear, together with the causes producing them:

KIND OF NOISE.	CAUSES.
1. Tidal "to and fro" noises, like the sound produced when a shell is held to the ear.	Tobacco; chronic catarrh of the middle ear, ending in undue contraction of intrinsic muscles.
2. Humming or buzzing noises, like the sound of a humming-top or the buzzing of a bee.	Impacted cerumen, eczema, foreign bodies or parasites in the external meatus.
3. Gurgling or bubbling noises, as of air bubbling through fluid.	Fluid in either (a) the tympanum or (b) the Eustachian tube; the result of catarrh.
4. Rustling or crackling noises.	Deficiency of cerumen (hairs in the meatus or on the membrane give sounds like an æolian harp); acute catarrh in its later stages.
5. Constant rushing noises, like the falling of water in a cataract.	Venous congestion of the labyrinth.
6. Pulsating noises, often said to be like the beating of a drum; frequently synchronous with the pulse.	(a) Extra-aural causes, anæmia, aneurism, etc.; (b) arterial congestion of the labyrinth.

EXTRA-UTERINE PREGNANCY SUCCESSFULLY RELIEVED BY ABDOMINAL SECTION.—Mr. Lawson Tait gives notes (*Lancet*, vol. ii., 1880, p. 456) of the fifth case of abdominal section for extra-uterine pregnancy coming under his care. On opening the abdomen, the pregnancy was found to be seated in the right broad ligament, the Fallopian tube having ruptured at its lower aspect and the ovum escaped into the tissues between the folds, as had been the case in all the instances he had operated upon. He made an opening at the upper and anterior part of the cyst, removed the child, which it was previously ascertained was quite dead, cleaned out the cavity, stitched the margin of the wound in the cyst to the wound in the abdominal wall, and left in a wide glass drainage-tube. All the details have been previously described at length in Mr. Lawson Tait's record of his previous case, published by the Royal Medico-Chirurgical Society. During the following

three weeks the placenta came away in pieces, the cavity gradually closed, and the patient left the hospital in perfect health.

PURULENT CONJUNCTIVITIS CAUSED BY INOCULATION FROM ULCERS OR OTHER DISCHARGES.—Dr. J. R. Wolfe (*Med. Times and Gaz.*, vol. ii., 1880, p. 260) says there can be no doubt that purulent conjunctivitis may be produced by inoculation from other than gonorrhœal or leucorrhœal discharges. A little girl three years of age had been troubled for four or five days with a serious inflammation of the right eye. On examination, the conjunctival sac was found filled with a yellowish, ichorous discharge, not like the creamy discharge in infantile ophthalmia. Dr. Wolfe had no doubt that it was a case of inoculation. On inquiry, he found that the nurse was suffering from ozæna, and bloody pus from her throat or nostrils was found upon the pillow. The smell was so offensive that every morning the window had to be opened before the child's mother could enter the nursery. As the child was the nurse's bed-companion, there could be no doubt how the disease originated. The case did well, without leaving any trace behind after ten days' treatment.

TREATMENT OF SEA-SICKNESS.—Dr. Beard recommends the bromides, particularly the bromide of sodium, taken in large doses for one to three days before sailing, so as to produce a mild bromism, and this bromism should be kept up during the voyage if necessary. In addition, sulphate of atropia in doses of $\frac{1}{100}$ to $\frac{1}{50}$ grain may be given hypodermically or by the mouth, and repeated with sufficient frequency to produce great dryness of the mouth. This treatment may be adopted alone or with the bromides. Atropia will sometimes be enough alone, and it prepares the way for the bromides. Powdered citrate of caffeine in two- or three-grain doses is useful in the sick-headache; or, as this causes wakefulness if given in the latter part of the day, cannabis indica in pills of $\frac{1}{2}$ to $\frac{1}{4}$ grain may be substituted.

UTERINE FIBROIDS CURED BY PREGNANCY.—Dr. A. N. Talley reports (*Virginia Med. Monthly*, October, 1880, p. 552) the case of a colored woman of 36 who had never borne any children, and who consulted him for an abdominal tumor. On examination, a multiple tumor consisting of four or five irregularly spheroid growths from small walnut to orange size embedded in one common tissue was discovered. The diagnosis of multiple extra-uterine fibro-cystic tumor was made. The growth increased in size for several months, when the woman became pregnant. On examination after labor, which was normal, no trace of the tumor was found, and some months later it showed no sign of returning.

VOMITING AS A SYMPTOM.—Prof. Potain, in a lecture on this subject (*Med. Times and Gaz.*, vol. ii., 1880, p. 401; from *Revue Méd.*), says there is in general much more vomiting in

an affection of the brain or in disease of the kidney than in affections of the stomach, except cancer which has reached a certain stage. So that when one is in the presence of a patient who is constantly vomiting alimentary matters without the digestive organs manifesting any well-marked sign of disease, attention should always be immediately turned to the encephalon and to the organs for the secretion of urine.

FLACCIDITY OF THE IRIS AS A SIGN OF REAL DEATH.—Dr. Boyd B. Joll writes to the *British Medical Journal* of September 25, referring to a condition of complete flaccidity of the iris as a sign of real death. He says that it can easily be shown by synchronous compression of the globe of the eye in two opposite directions, when the pupil will readily assume an oval or irregular shape, whereas in apparent death no ordinary amount of compression in this manner will have the least effect in altering the circular form of the pupil. [A communication in a later number of the *Journal* goes to show that this sign cannot invariably be depended upon.—ED.]

TEST FOR ARSENIC IN WALL-PAPERS, ETC.—Dr. Henry Barnes gives the following easy test to detect arsenic in paper-hangings, etc. Immerse the suspected paper in strong ammonia, on a white plate or saucer: if the ammonia becomes blue, the presence of a salt of copper is proved; then drop a crystal of nitrate of silver into the blue liquid, and if any arsenic be present the crystal will become coated with yellow arseniate of silver, which will disappear on stirring.

GUNSHOT WOUND OF THE MEDIAN NERVE.—Mr. Lawrie communicates to the *Lancet* (vol. ii., 1880, p. 575) the case of a boy of 10, who was accidentally struck in the right arm by a charge of small shot. Several pellets were removed from underneath the skin in the neighborhood of the elbow, but none appeared to have penetrated more deeply. A good deal of superficial inflammation followed, and the boy lost the use of his forearm and hand. It was not clear whether this paralysis was immediate or came on gradually. Great and increasing pain in the arm and corresponding side of neck and body. Examined three months after the accident, a very peculiar drop of the right wrist was observed, with loss of power in the forearm and exalted sensibility in the palm of the hand. There was much glandular and lymphatic enlargement, which obscured the diagnosis, but thickening of the median nerve was satisfactorily made out about the middle of the arm, and Mr. Lawrie therefore cut down upon it, with antiseptic precautions. When exposed, the nerve was more than twice its proper size, and he was about to stretch it, when he detected a hard body in its interior. Instead of stretching, a longitudinal incision was made into its substance, and a pellet found and removed. The wound healed by

first intention, and the boy rapidly recovered power in the forearm and normal sensation in the hand, and was discharged cured in ten days.

NEW METHOD OF TREATMENT IN PROLAPSUS ANI.—Professor Kehrer (*New York Medical Record*; from *Deut. Med. Wochens.*, August 14) folds together a portion of the sphincter, and, after excision of its mucous covering, secures the folds by means of a firm suture. Thus a portion of the ring is eliminated, and the calibre narrowed correspondingly. In two cases subjected to this operation a speedy cure took place.

MISCELLANY.

CHRONIC ACCIDENTAL POISONING FROM ARSENICAL WALL-PAPERS.—In a paper on chronic accidental poisoning (*Practitioner*, vol. xxv., 1880, p. 175) Dr. Henry Barnes calls for legislative interference for the prevention of chronic poisoning from arsenic as contained in wall-papers, toys, confectionery, artificial flowers, etc. A paper on this subject, presented before the Medical Society of London, showed that out of one hundred cases thirty-two had occurred in the families of medical men, showing the difficulties attending the diagnosis of this form of poisoning. Dr. Barnes adds to the evidence already accumulated two cases coming under his personal observation. He draws the following conclusions:

1. Arsenical wall-papers are in common use.
2. These papers are capable of producing serious and even alarming symptoms in some persons inhabiting the rooms in which such papers are hung.
3. Legislative interference is desirable in the direction of imposing some check upon the free and unrestricted sale of poisoned articles.
4. Until such legislation is obtained, medical men should urge their patients to purchase only such wall-papers as are guaranteed "free from arsenic."

TREATMENT OF SPRAINS.—Dr. R. Dacre Fox (*Brit. Med. Jour.*, vol. ii., 1880, p. 504) suggests the following treatment. It may be divided into two stages; the first lasting from a day to a week or longer, during which the treatment has to be directed to averting inflammation by rest, warm applications, anodyne lotions, etc.; the second commencing when the joint has become cold, swollen, and painful on movement,—in fact, when the injury has assumed a more or less chronic character. This consists of pressure applied (around the ankle, for instance) as follows. The normal hollows about the joint are developed as far as possible by kneading the swollen and oedematous tissues which have obliterated them; then five pads of tow, lint, or leather, about one inch by two to four, adapted in shape to the normal hollows, are applied. They may, in old chronic cases, be

fastened in place by a long, extended, half-moon-shaped piece of plaster (emplastrum saponis spread on leather), long enough for the ends to overlap in front when the heel is placed in the centre, and a narrow, oblong piece above this, placed around the lower part of the leg, to cover the upper part of the pads. The handiest way to apply the pads is to apply an elastic ring over them, which may be cut when the oblong piece of plaster is put on. Lastly, the whole ankle is to be firmly bandaged.

THE Vienna Medical School has sustained severe losses of late.—Rokitansky, Schuk, Oppolzer, Hebra, Skoda, Sigmund, and Hyrtl, constituting a constellation of teaching-power that, perhaps, has never before been assembled together in one school; and now all, as teachers, have disappeared, for, although the three last named are still living, they have retired from the faculty.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM OCTOBER 17 TO OCTOBER 30, 1880.

- BAILY, E. I., LIEUTENANT-COLONEL AND SURGEON.**—When relieved by Surgeon Moore, to proceed to Wilmington, Del., and report by letter his arrival to the Surgeon-General.—S. O. 232, A. G. O., October 28, 1880.
- MOORE, JOHN, MAJOR AND SURGEON.**—Relieved from duty with Army Medical Examining Board in New York City, and to report in person to Commanding General, Department of the Columbia, for duty as Medical Director of that Department. S. O. 232, A. G. O., October 28, 1880.
- SPENCER, W. C., MAJOR AND SURGEON.**—Assigned to duty at Fort Snelling, Minn. S. O. 129, Department of Dakota, October 25, 1880.
- WHITE, C. B., MAJOR AND SURGEON.**—To report in person, at the expiration of his present leave of absence, to the Adjutant-General of the Army, for special duty in connection with the Recruiting Service. S. O. 229, A. G. O., October 25, 1880.
- CALDWELL, D. G., CAPTAIN AND ASSISTANT-SURGEON.**—Assigned to duty as Post-Surgeon at Fort Fred. Steele, Wyo. T. S. O. 98, Department of the Platte, October 20, 1880.
- MATTHEWS, W. C., CAPTAIN AND ASSISTANT-SURGEON.**—His assignment to duty at Cantonment on the Uncompahgre River, Col. revoked, and he is assigned to duty at Fort Wingate, New Mexico. S. O. 229, Department of the Missouri, October 16, 1880.
- TORNEY, G. H., CAPTAIN AND ASSISTANT-SURGEON.**—When relieved by Assistant-Surgeon Matthews, to proceed to Fort Lyon, Col., and report to the Post-Commander for duty. S. O. 229, c. 2., Department of Missouri.
- WOOD, M. W., CAPTAIN AND ASSISTANT-SURGEON.**—At the expiration of his present leave of absence, to report in person to Commanding General, Department of the East, for assignment to temporary duty. S. O. 232, c. 2., A. G. O.
- CUNINGHAM, T. A., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.**—Granted leave of absence for six months, with permission to go beyond sea. S. O. 227, A. G. O., October 22, 1880.
- BURTON, H. G., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.**—Granted leave of absence for two months, with permission to apply for one month's extension. S. O. 230, A. G. O., October 26, 1880.
- GIBSON, R. J., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.**—Relieved from temporary duty at Fort Leavenworth, and assigned to duty at the Cantonment on the Uncompahgre River, Col. S. O. 229, c. 2., Department of the Missouri.